THE BRITISH JOURNAL
OF
DERMATOLOGY
FEBRUARY 1953

AN HYPOTHESIS CONCERNING THE PATHOGENESIS OF SYSTEMIC LUPUS ERYTHEMATOSUS.

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Some idea of the frequency of this condition can be gained by reference to earlier reports, for Schmidt (1914) found records of only 30 cases ; eight years later Ehrmann and Falkenstein found 60, while Delzant (1945) could record only 80. An increase in frequency observed by Engman (1937) has been confirmed more recently (Lian *et al.*, 1947). This is probably in part due to a greater awareness of the syndrome and a realization of its multiform appearance as well as of the fact that a skin rash is not essential for the diagnosis.

Before discussing its pathogenesis it is essential to review the evidence establishing its relationship with chronic discoid lupus eythematosus. The first observations of Kaposi (1872) recorded two patients with chronic discoid patches who later became acutely and fatally ill, and throughout the literature one reads of many similar accounts. Pernet (1908), describing the *aigu d'emblée* type, was the first to recognize that the acute and fatal form could arise *de novo*. More recently it has been expressed that these two conditions are distinct entities—the discoid form never becoming systemic, the acute never originating from the chronic or even being associated with it. However, to assume that discoid lupus erythematosus is a disease solely confined to the skin is as mistaken as considering erythema nodosum to be only a cutaneous disturbance. It is accepted that erythema nodosum is commonly associated with hypersensitivity to a tuberculous or streptococcal focus, though other infective agents (leprosy, syphilis, coccidiomycosis, trichophytosis, lymphogranuloma) are occasionally responsible, and an identical picture may develop from drug sensitivity (e.g., sulphathiazole, iodides, bromides, quinine). Furthermore, erythema induratum also reflects such a dual aetiology (type

Bazin being tuberculous and " nodular vasculitis " often being streptococcal).

It is my contention that discoid lupus erythematosus is yet a third morphological entity which may have dual, or, indeed, multiple causes in the first place. What determines the type of morphological response is not the nature of the stimulating mechanism, but other less well understood conditioning factors. Of these, for lupus erythematosus, the effect of weather on the skin, particularly sunlight and cold, not only aggravates the process but appears to determine the actual sites involved (while the areas elected in Bazin's disease are dictated by posture, stasis and a chilblain circulation). The initiating mechanism, whether it be of toxic, bacterial or antigenic nature, is distributed from some central site and, presumably through a vascular intermediary, influences the skin as a peripheral " end organ." Changes are produced which may be potentiated or altered by both internal and external factors.

It is salutary to note that nearly thirty years ago MacLeod (1924) felt that this reaction " is not a pathological entity due to some specific cause, but rather a cutaneous symptom of peculiar type which may be called forth by a variety of toxic or septic causes." I believe that the initiating antigen which stimulates a cutaneous expression of discoid lupus erythematosus is frequently streptococcal, the thesis championed by Barber (1915, 1920, 1938, 1941), and further supported by the studies of Hopkins (1935) and Adamson (1947). Moreover I believe that tuberculosis is occasionally responsible despite the work of Mook *et al.* (1931) and Keil (1933). The development of this condition synchronously with other acknowledged tuberculides (Bazin's disease or papulo-necrotic tuberculide) has frequently been witnessed. Furthermore, I believe that there are other antigens, infective in nature and possibly non-infective, which may occasionally be culpable.

Recently patients with the discoid disease have been subjected to more intensive investigations than hitherto, and it has been found that haematological and biochemical changes previously considered to be typical of the systemic form are being found as well in this localized disease ; thus, a raised sedimentation rate, anaemia and leucopenia are often seen ; serum protein estimations may reveal hyperglobulinaemia and the urine may occasionally contain albumin. The presence of L.E. cells at first appeared to be reliable evidence of systematization, and Michelson (1952) suggested the terms " Hargraves negative " and " Hargraves positive " ; however, they are occasionally found (two in my series) in these localized types (Berman *et al.*, 1950) and, according to Smith (1952), in at least seven typical systemic cases L.E. cells were not discovered after prolonged and expert search. Even histological appearances of the skin are of little help in differentiation, as has been shown by Montgomery (1939), for between the two extreme clinical types there are all degrees of change which merge imperceptibly, making separation impossible.

It becomes apparent that no suitable laboratory criterion remains by which these two conditions can safely be separated.

Should it not, therefore, be agreed that any attempt to separate these two conditions in a pathogenic, rather than a clinical sense, is unnecessary, for no single hard and fast rule can be laid down whereby differentiation is certain. This strange association of a chronic benign process with a violent and malignant one at once differentiates lupus erythematosus from erythema nodosum and erythema induratum, neither of which ever develop into a comparable systemic and fatal illness.

It is attractive but premature to suggest that some substance associated with the pituitary-adrenal axis is the natural restraining force effectively applied in patients suffering from the discoid disease. It is possible that by adequate production of such a substance potential tissue changes may be completely masked. An example of such a natural process is suggested by events occurring during the illness of one of my patients. At one stage during her disease, while receiving no medication, this twenty-five-year-old nurse severely and progressively ill suddenly developed, for the first time in her life, acne and seborrhoeic dermatitis of the face and chest ; at the same time she experienced a striking remission in both arthritis and fever. The obvious supposition was that these apparently disconnected events both reflected a rise of naturally produced adrenal corticoids.

An intimate association of this disease with endocrine balance is also suggested by the striking number of females affected compared with males, a sex distribution similarly evident in erythema induratum and, to a less extent, in adult erythema nodosum. The maximum age incidence occurs between the years of twenty and forty—the period of sexual activity. Examination of individual case records reveals further support for this contention. For instance, one of my cases developed first a skin rash and then the systemic illness after removal of both ovaries ; another dated the illness to an episode diagnosed as ischaemic necrosis of the pituitary ; a third was much worse after childbirth, and in another it developed after hysterectomy.

Throughout the active sexual life of the healthy adult female there is a constant fluctuation of hormone balance reflected outwardly in libido, skin texture and the menstrual cycle ; such fluctuations are intimately connected with the pituitary-adrenal axis, a system now thought to be paramount in the adaptation of body processes to stress. Lamb *et al.* (1948) found evidence of " disturbed ovarian function " in all his cases, and the excretion of 17-ketosteroids appeared to be low. It is not unreasonable to suggest that this instability of the pituitary-adrenal axis may account for the long noticed but hitherto inadequately explained extraordinary female preponderance of systemic lupus erythematosus (and also in erythema nodosum of adults, erythema induratum and even rheumatoid arthritis). Yet further support is afforded

by the behaviour of one male patient ; he revealed, in the early stages of his illness, absence of sexual activity with abnormally low androgen excretion. Systemic administration of both testosterone and dehydroiso-androsterone was no use, nor did cortisone produce dramatic results. Subsequently the process remitted and he made enough improvement to return to work ; his sexual vigour is returning, but he has made the spontaneous observation on several occasions that within twenty-four hours of coitus his symptoms of joint pains, conjunctivitis, urticaria and bullae regularly reappear to last for a few days. The after-effects of the sexual act are immediately reflected in release of otherwise adequately masked symptoms.

It would seem that a basic feature predisposing to the development of this disease, therefore, is a lability of endocrine balance. Such a thesis will rationalize the sex distribution and the average age of onset, and will explain the frequent observations that childbirth, castration and other processes involving a change of endocrine balance may influence and even at times appear to precipitate the illness. It would account for the occasional yet transient effect produced by therapeutic castration, and will explain how no single measure directed to affect one gland alone can possibly provide the therapeutic answer.

The observations of Fox (1943) and Ayvazian and Badger (1948) have shown how the injection of foreign substances may instigate this process. Medicines taken orally occasionally precipitate the systemic disease, more particularly had the discoid form previously been present ; among those culpable are iodine, thiourea, deoxycortone (Gibson and Quinlan, 1945 ; Hoffman, 1945 ; Marine and Baumann, 1945), but predominantly important are undoubtedly gold and the sulphonamides (Gold, 1951). It is pertinent to note that of the eruptions due to sulphonamides 1% of 500 cases (Peterkin, 1945) were indistinguishable from lupus erythematosus. Sulphonamides frequently precipitate erythema nodosum, and there is much clinical and experimental evidence to suggest that polyarteritis nodosa may be so induced. It has been shown by More (1950) that the histopathological lesions resulting from sulphonamide sensitivity present a picture closely related to that seen in the so-called collagen diseases.

As a result of routine investigations I am satisfied that the following haematological abnormalities are characteristic in systemic cases :

1. *Anaemia* (present in more than 50%). The administration of cortisone may produce a reticulocyte response (Whipple and Davidson, 1950 ; Wintrobe *et al.*, 1951).

2. *Leucopenia* (present in more than 60%). This has long been regarded as an important diagnostic feature. As yet, the degree of leucopenia has not been adequately correlated with the degree of L.E. cell production. Leucopenia is frequently improved during the administration of cortisone.

3. *Platelets* are occasionally depressed. Satisfactory observations of a rise in their number following cortisone have not often been made though it is to be expected (Flood and Limarzi, 1950 ; Wintrobe *et al.*, 1951).

4. An occasional false positive Wassermann and Kahn reaction may occur. Montgomery (1940) found that 17% of his patients revealed positive reactions, and most authorities have come to accept such a finding as not unusual (Baehr, 1947). Rein and Kostant (1950) analysing the findings of 178 patients found positive reactions in 35%, though in most cases these were of low titre. On repeated tests the titre is found to fluctuate, and it has been supposed that these false positive reactions are due to the presence of abnormal globulins.

5. The ability of these patients to form multiple antibodies to transfused blood is quite remarkable (Callender *et al.*, 1945 ; Callender and Race, 1946). As many as six separate antibodies have been demonstrated in one patient.

6. The serum factor of rheumatoid arthritics which will agglutinate sensitized sheep's red cells was described by Rose *et al.* (1948). They noted that it occasionally was positive in systemic lupus erythematosus—a fact confirmed by Ball (1950), who showed that this was distinct from heterophil antibody ; it appeared to be highly specific.

7. Fibrinolysis occurring during the incubation of clotted blood at 37° C. is occasionally complete ; this may disappear after administration of ACTH (Loewi, 1951).

8. Hyperglobulinaemia with reversal of the normal albumin/globulin ratio has been recognized as a fundamental anomaly since the observations of Coburn and Moore (1943). They believed that a large part of this increased globulin is composed of the γ-fraction and could well be antibody—they even suggested the possibility of it being auto-antibody.

9. The diagnostic importance of the L.E. cell has been discussed extensively (Berman *et al.*, 1950 ; Smith, 1952) but no definite explanation as to its mode of formation has yet been forthcoming ; it would seem likely that it is closely related to some of the features enumerated above.

I consider that many of these reactions are due to the presence of abnormal γ-globulins, some of which are specific immunological bodies. During my investigations two examples of auto-antibodies came to light, and I believe that these are probably a fundamental anomaly of this disease process. Spontaneous haemagglutination after venepuncture occurred in one patient early in this series, and later in another when it was shown that a high degree of cold agglutination was present (1/128). Since no mention is made of cold agglutination occurring in this disease by Whitby and Britton (1950) nor in the exhaustive survey by Stats and Wasserman (1943) it was decided to investigate a group of these patients. The results obtained are presented in Table I. In only three of eleven patients is the degree of cold agglutination abnormal (Cases B, I, K).

Haemagglutinins causing cold agglutination behave as true antibodies and are found in the γ-fraction of globulins. Their significance is uncertain and they are present in some small degree in the great majority of normal people ; they are seldom demonstrable, however, in a dilution of serum greater than 1/16, except in pathological states. A marked rise in cold agglutinins is well recognized in virus pneumonia, trypanosomiasis, tropical eosinophilia and various anaemias, and it is apparent that these agglutinins are qualitatively identical with those found in healthy persons and merely quantitatively increased as is their thermal range. An interesting feature of the auto-antibodies is that they are non-specific, and will cause agglutination of red cells not only from blood of other groups but also from other animals (rabbits, horses, etc.). The agglutination is reversible, for on re-warming to 37° C. the cells are freed without haemolysis. By repeated agglutination it is possible to exhaust the serum containing the agglutinins, which can be shown to be immunologically distinct fractions of the γ-globulin. They behave, in fact, as true antibodies. My attention has recently been drawn to a similar observation made in the United States (Schleicher, 1951 ; Fjelde, 1951).

TABLE I.

	Cold auto-agglutination.	Direct Coombs test.	L.E. cells in peripheral blood.	Clinical state.
B	++++	Not tested	—	Fatally ill.
D	—	—	—	Remission.
F	+	—	—	,,
G	—	—	+	Fatally ill.
I	++++	+	+++	,,
K	+++++	+	++	Subacute activity.
M	+	—	+	,, ,,
Q	++	—	+	Quiescent.
R	+	—	+	,,
T	+	—	—	,,
U	—	+	—	Subacute activity.
V	—	+	—	,, ,,
W	—	—	—	,, ,,

Yet a further example of auto-antibody formation is the interesting feature first noted by Zoutendyk and Gear (1950) that the Coombs test may occasionally be positive in these patients.

It would not be pertinent to discuss the significance of the test originally described (Coombs *et al.*, 1945) in connection with babies born of Rh — mothers and Rh + fathers. Should the foetus be Rh +, then, during pregnancy, the mother is liable to develop antibodies to the infant's red cells, which, by diffusion across the placenta, may cause their subsequent haemolysis. This test will detect these blood group antibodies, the effective component of which is a γ-globulin (Coombs and Mourant, 1947). It will suffice to say that a positive Coombs test developing in an adult person who has not received a

blood transfusion is an indication of the formation of one type of auto-antibody.

There is thus factual evidence, from studies on the blood, of the presence of abnormal γ-globulins, of a ready tendency to develop antibodies and of development of auto-antibodies—not a surprising finding in view of the frequency of drug reactions and other sensitivities exhibited by these patients.

It is pertinent to note that the tissue changes lend support to this concept of a disturbance of the immune mechanism. The characteristic picture seen in the renal glomeruli known as " wire-loop " degeneration represents a change occurring at the basement membrane of the glomerular capillaries ; these changes closely resemble those seen in the kidneys of animals that have died from hyperimmune sickness. The splenic lesions, which consist almost solely of perivascular fibrosis, present a picture which is sometimes seen in sarcoidosis and paramyloidosis, and it is probable that these changes too are associated with hyperimmunity and hyper-γ-globulinaemia. Although the staining changes of amyloid are quite distinct from those seen in this process, it is probable that the basic anomaly (one of hyperimmunity) is not so far divorced.

I now put forward the hypothesis that systemic lupus erythematosus is a disturbance of the immune mechanism. This state arises through lack of adequate restraint normally supplied by the pituitary-adrenal axis, and allows the development of useless antibodies and even auto-antibodies. It is probable that these auto-antibodies, of which, as yet, only two have been established, are responsible for depression of red and white blood cells and of blood platelets. It is possible that the L.E. phenomenon can be a similar process.

The pattern of the tissue response is one of hyperimmunity or disordered immunity and, finally, I would put forward a hesitant suggestion that the focal mesenchymal changes—the metachromasia of ground substance, " fibrinoid " degeneration of collagen and the peculiar fibroblastic reaction, which are all associated with depolymerization of nuclear material—are but non-specific reactions occurring at sites of antigen-antibody conflict in fixed tissues. Though Klemperer (1952), in his most recent review, believes that hypersensitivity does not play a major part, I feel that an open mind should be kept on this aspect as I regard discoid lupus erythematosus as definitely being such a manifestation. Sometimes the two (hypersensitivity and disordered immunity) occur together, sometimes separately ; sometimes one develops into the other. Normally what we mean by the systemic disease is kept in check through the agency of the pituitary-adrenal axis ; in women with a labile endocrine balance this is more readily upset and immunological equilibrium destroyed. Cortisone's clinical effect, which is partly due to damping down of tissue reactions as well as the suppression of antibody formation, further supports this concept.

Four of the common clinical phases of this disease may thus be represented diagrammatically (Fig. 1).

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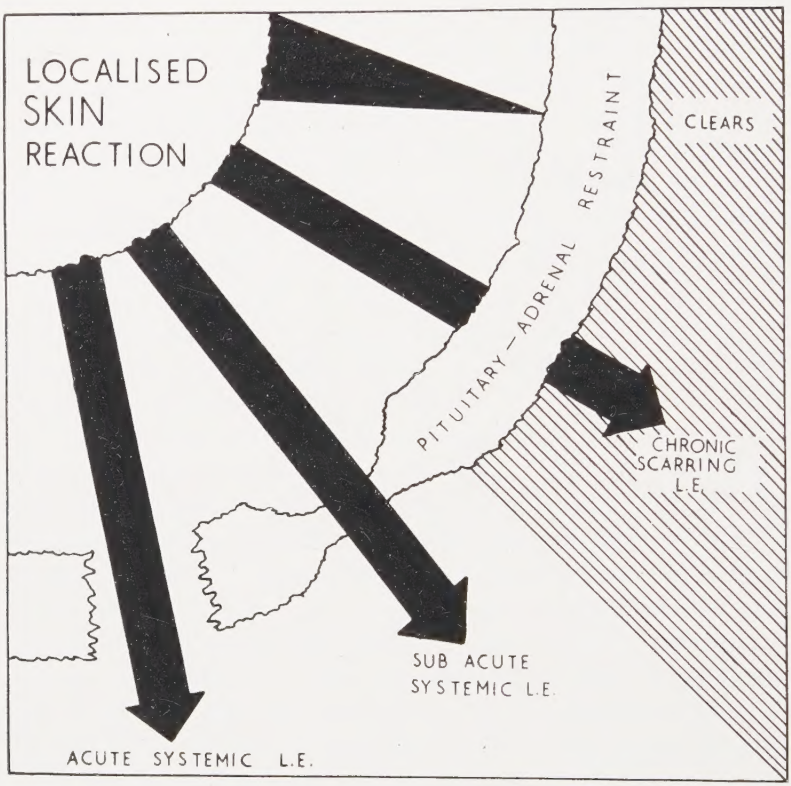

FIG. 1.—Thick black line represents antigenic stimulation from infective focus. Pituitary-adrenal " barrier " represents the normal restraint applied to stressful mechanisms by this system. Penetration of this " barrier " will allow formation of antibodies and auto-antibodies to occur—i.e., breakdown of normal immune mechanism. Thus :

a. The top arrow shows removal of, or disappearance of, the antigenic focus (black line disappears) and lupus erythematosus clears.

b. The next represents the scarring discoid disease in which the antigenic focus persists. Pituitary-adrenal restraint is adequate.

c. The third type shows persistence of antigenic focus with some weakening of the defence barrier. Clinically these cases are subacute systemic ones, disseminated discoids and others which cause much argument and clinical speculation.

d. The last example demonstrates complete breakdown of the immune mechanism with development of the florid systemic illness. It can be appreciated how such an event may readily occur without the discoid disease preceding.

SUMMARY.

There is no biochemical, haemotological or histological test which can differentiate with certainty between localized and systemic types of lupus erythematosus. The distinction is a clinical one.

It is suggested that the localized cutaneous disease is a manifestation of sensitivity to an infective focus. The systemic disease, which is characterized by hyperglobulinaemia, is associated with antibody and auto-antibody formation (Coombs test, cold agglutination, L.E. cell and possibly tissue reactions), and represents a superadded disturbance of the immune mechanism. Such an

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event will occur more frequently in the young adult female, in whom the pituitary-adrenal system has to maintain a regular state of hormonal flux and may the more readily be upset.

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SODIUM CHLORIDE AND PIGMENTATION.

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In cases of Addison's disease it is usual to find a fall in the blood sodium chloride, a change which may be marked during a crisis but which is only slight in many cases during the less severe stages of the disease. In an attempt to correlate these findings with the pigmentation of Addison's disease Lea (1945, 1947) carried out experiments which demonstrated the inhibiting action of sodium chloride on tyrosinase. Riley (1950) also noted the inhibition produced by various concentrations of sodium and potassium chloride on dopa-oxidase extracted from mouse melanoma, and did not detect any difference between the effects of the sodium and the potassium ion. In connection with these experiments one recalls the work of Ralli and Graef (1943) and Spoor and Ralli (1944), who produced depigmentation of the fur of rats by feeding them on a diet deficient in pantothenic acid, a phenomenon which was reversed if the rats were given unlimited quantities of 1% saline to drink. Adrenalectomized rats developed deep pigmentation, which was diminished by injections of desoxycorticosterone. On these results the experimenters commented that sodium chloride seemed to have something to do with the pigmentation, but considering the many other factors involved and the difficulty of applying results obtained on rat fur to human skin they did not suggest any hypothesis to explain Addisonian pigmentation.

With these experiments in mind it was decided to test the effects of various concentrations of sodium chloride on tyrosinase obtained from potatoes.

Method.

Tyrosinase was prepared by reducing a small potato to pulp on a scraper and extracting the juice by straining through muslin into 100 ml. of Sorensen phosphate buffer solution adjusted to pH 7·2. The total volume of the crude extract was about 150 ml., and this was centrifuged to remove the starch.

To 8 Erlenmeyer flasks were added the various solutions and reactants as shown in Table I. The first four flasks (A, B, C, D) were set up to demonstrate the effects of various concentrations of saline on the enzyme and the last four (E, F, G, H) were controls. It was found by trial that 10 ml. of the enzyme solution were required to give a certain and reasonably rapid result. With smaller quantities the results were apt to be erratic, and required many hours of reaction before a sufficiently definite colour change could be recorded. The experiments were carried out at room temperature at pH 7·2. Sufficient buffer solution was added to each flask to maintain the particular hydrogen ion concentration and this was checked throughout the experiment.

TABLE I.

	Tyrosine.	Tyrosinase.	Buffer.	Distilled water.	Saline.	Colorimeter reading.				
						½ hr.	1 hr.	1½ hr.	2 hr.	2½ hr.
A	20 mg.	10 ml.	10 ml.	90 ml.	0	3·2	5·3	8·1	12·9	17·1
B	20 „	10 „	10 „	0	90 ml. 0·9% NaCl	1·4	3·7	6·0	10·7	14·5
C	20 „	10 „	10 „	0	90 ml. 0·6% NaCl	2·0	4·8	6·8	11·6	15·0
D	20 „	10 „	10 „	0	90 ml. 0·45% NaCl	2·5	5·2	7·0	12·0	15·9
E	0	10 „	10 „	90 ml.	0	0·4	1·0	1·0	1·0	1·0
F	0	10 „	10 „	0	90 ml. 0·9% NaCl	0·4	0·8	0·8	0·8	0·8
G	20 mg.	0	10 „	90 ml.	0	0·0	0·0	0·0	0·0	0·0
H	20 „	0	10 „	0	90 ml. 0·9% NaCl	0·0	0·0	0·0	0·0	0·0

The action of the enzyme was shown by the development of a pink colour in the solution, which deepened to orange-red and finally, if the flasks were left overnight, to a black solution of melanin. The rate and degree of colour change developing in the solutions were used to record the activity of the enzyme. At half-hourly intervals 5 ml. of solution were withdrawn from each flask and the degree of light absorption measured with an ordinary photo-electric colorimeter with a green Ilford 404 filter. As the reaction proceeded the colour deepened and it was possible to construct a curve from the readings as shown in Fig. 1.

RESULTS.

In Table I are shown the readings of the first of the experiments. It will be seen that the greatest conversion of tyrosine to the intermediate stages of melanin took place in flask A, which contained distilled water as the substrate. The smallest readings were obtained from flask B, which contained 0·9% sodium chloride, and intermediate readings were taken from the other two flasks C and D corresponding to the smaller concentrations of the salt.

In the control flasks slight changes took place in those containing the enzyme solution without added tyrosine (E and F), possibly owing to the presence of minute quantities of tyrosine in the potato-juice. In the other two controls no reaction took place.

The combined results of eight sets of experiments are plotted in the graph in Fig. 1. There was remarkably little difference between the individual sets of experiments, and the graph shows quite clearly the inhibiting action of the sodium chloride on the enzyme.

DISCUSSION.

In general these experiments confirm the results obtained by the investigators mentioned earlier in this paper. The difference between the effect of distilled

water and that of normal saline is clear cut. On the other hand the difference between the effects of 0·6% and 0·45% saline is slight and, as can be seen from the graph, the two curves merge after $2\frac{1}{2}$ hours.

In the normal person the plasma sodium chloride is given as 570–620 mg. per cent. In an Addisonian crisis the level may drop to as little as 400 mg. per cent.; but although in most cases of Addison's disease there is a fall in the

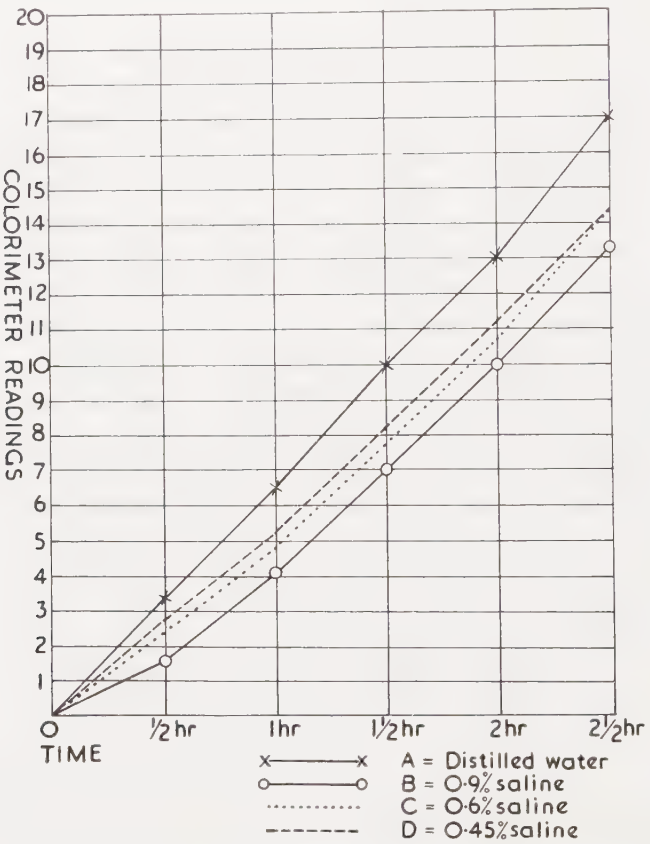

Fig. 1.

plasma sodium chloride, it is not usual for this fall to be great and the level may well remain at the lower normal reading for much of the duration of the disease. If, as these experiments show, low concentrations or absence of sodium chloride facilitate melanin formation when compared with high concentrations of the salt, one would have to expect a considerable fall over a long period of time to produce the degree of pigmentation found in Addison's disease. A slight fall over a long time or a large fall for a short time are unlikely to produce the results seen, the first because small variations from the normal will produce insignificant changes, the second because the patient is

unlikely to survive long enough for pigmentation to develop. Furthermore, patients who have been maintained on DOCA implants with, presumably, a normal level of sodium chloride in their blood, do not necessarily lose their pigmentation to any very marked degree.

Melanin pigmentation caused by other agents such as irradiation of the skin or drugs is not so far as I am aware attended by a lowering of body chlorides; other conditions associated with lowered chlorides are not necessarily accompanied by increased pigmentation. Joiner and Thorne (1952) have described three cases of salt-losing nephritis in two of which there was some degree of skin pigmentation. They mention other cases of the same syndrome which did not show this melanosis. Unfortunately there is some doubt whether these two pigmented cases were genuine examples of the condition, but even if they were there seems no reason to ascribe the pigmentation to the lowered chloride. Before reaching such a conclusion one would have to know whether other factors were present and the required data were not available.

From these facts, therefore, I would conclude that the lowered blood sodium chloride in cases of Addison's disease plays no significant part in the production of the melanosis which is such a feature of the condition.

Summary.

Experiments are described which demonstrate the effect of sodium chloride solutions on tyrosinase.

The inhibiting effect of the salt on the enzyme discovered by previous investigators is confirmed.

These experimental results and consideration of the biochemical changes found in Addison's disease give no ground for believing that the lowering of the blood sodium chloride in that disease contributes to the degree of pigmentation which is commonly found.

I am greatly indebted to Dr. R. Salm, who gave much helpful advice and who kindly allowed me to use his laboratory while carrying out these experiments.

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BOOK REVIEWS.

Allergy and Seborrhoea.*

This excellent little book should be in the library of every dermatologist not only as a vade-mecum for the disappointed but not yet disillusioned nipsochrismotherapist,† but also as an historical document; for it records in detail the semeiology of nearly all the common skin diseases as they are seen in the Midlands during the second post-war period, in combination with most of the wishful thinking about pathogenesis and therapy that prevailed in the first.

Medicine is an art and not a science. The horses of Franz Marc must graze peacefully beside those of Munnings and Picasso. They all pull an equal load, though some work best in the fashionable equipage of private practice and others in the humble tumbril of the Aldershot M.I. room. When they quarrel the sparks from their clashing hooves illuminate the darkling recesses of minds preoccupied with the treatment of warts and the preparation of claims for travelling expenses.

But nobody could quarrel with the contents of this little volume, or disprove the value of the very numerous treatments recommended in it: for are they not mostly long term hygienic measures intended to contribute but indirectly to the readjustment of a constitutional equilibrium? Even psychotherapy is mentioned—as an afterthought.

Every general practitioner too should provide himself with a copy, for the instructions in local therapy are quite admirable. Indications are carefully set out in minute detail for the use of some well-tried and traditional formula in each phase in the development of every lesion. The sulphonamides, penicillin, and the antihistaminics are unobtrusively and tactfully ignored. Indeed, if the general practitioner could keep his patient happily entertained with the activities described in this little book, the dermatologist would have much more time to deal with his warts.

J. H. T. D.

The Writing of Medical Papers.‡

Dr. Bett, bibliographer to the British Association of Dermatology, has lectured on this subject to many audiences. The lecture has now been published by the courtesy of Messrs. Menley & James, Limited, who intend to present complimentary copies to final year medical students throughout the country. The book is not for sale but Messrs. Menley & James, Limited, will be glad to send free copies to any medical practitioners who are interested.

Dr. Bett has compiled a very readable guide to intending authors which we strongly recommend for study. Indifferent writing wastes a great deal of editorial time and, no doubt, reduces the value of many articles which are written. The editor of this Journal, for one, sincerely hopes that all our contributors will obtain this little book, read it frequently, and digest it thoroughly.

* *Allergy and Seborrhoea.* By J. Avit Scott. London: H. K. Lewis & Co., Ltd., 1952. Pp. 100. No illustrations. Price 12*s.* 6*d.*

† Nipsochrismotherapist: One who pretends to cure skin diseases with lotions and ointments.

‡ *The Preparation and Writing of Medical Papers for Publication.* By W. R. Bett. 1952. London: Menley & James Limited.

MacKenna's Textbook.*

This fifth edition of a favourite work has been extensively revised and entirely reset. It provides in relatively small bulk an amazingly inclusive account of cutaneous medicine. As would be expected of the author, his not infrequent incursions into tropical dermatology are lucid, concise and profitable; the account of lepra, for instance, is a model of the qualities mentioned. In view of the pace at which the subjects of the antibiotics and cortisone have developed, it is scarcely fair criticism to say that the references to these are not quite up-to-date. The seemingly unavoidable time-lag in publication makes this literally impossible.

As one who never accepted the popular condemnation of thallium epilation, the reviewer appreciates MacKenna's very judicial appraisal of the method.

Minor misprints are not very uncommon, and of the few major ones the following are pointed out for correction in the next edition: "recaptured" should be "ruptured" (p. 261); "occipital" should be "occupational" (p. 384); "kilowattage" should be "kilovoltage" (pp. 412 and 560); "floor" should be "flexor" (p. 443); "concise" should be "conical" (p. 461); and, lastly, ought not the ascription (p. 205) of the observation of a yeast-like fungus to Plotinus be rather to Photinos than to the third century Father of Neo-Platonism? It is probably an oversight that porokeratosis (Mibelli) is described twice on p. 470 and p. 543. These are trifling flaws in an admirably written, illustrated and produced volume, which can be warmly recommended as giving the student and practitioner a very extensive, authoritative, practical and yet, withal, philosophical account of the subject. J. F. S.

The 1951 Year Book.†

The Year Book of Dermatology and Syphilology has surely become an annual event to which most dermatologists turn to refresh their minds on what they have read in the past year and to inform themselves of much that has escaped them. Dr. Sulzberger and Dr. Baer have this year maintained their previous high standards and continued to earn the gratitude of their colleagues.

We recall that a few years ago their opening chapter dealt with common misconceptions regarding skin diseases. This year appears a thirty-two page chapter on the common errors in the management of skin diseases, written essentially as a guide for the general practitioner, and which most dermatologists will read with lively satisfaction. They mention the common mistake that circinate lesions are inevitably ringworms: that otitis externa is usually a fungus infection and that pus inevitably indicates infection. It is heartening, too, that they attack the uncritical diagnosis of "—ide" eruptions.

In treatment they caution against messy and unpleasant medications, mistakes in cleansing the skin; their attack on the local use of antipruritics is timely.

A considerable section is devoted to a discussion of psychosomatic influences in skin diseases. In this field there is, it seems, room for every conceivable shade of opinion. It happens that the reviewer is in complete agreement with the views expressed in this book; but it seems fair to say that the views expressed are eminently reasonable and excellently set out, food for thought whether completely acceptable to the reader or not.

The rest of the book consists of the usual summaries culled from the literature, followed in many cases by the shrewd comments of the authors. F. R. B.

* *Diseases of the Skin, a Manual for Students and Practitioners.* By Robert W. MacKenna, M.A., M.D., Ch.B.Edin. Fifth edition by Robert M. B. MacKenna, M.A., M.D.Camb., F.R.C.P.Lond., with a chapter concerning Radiology by I. G. Williams, F.R.C.S.Eng., D.M.R.E.Camb., F.F.R.Gt. B. 1952. London: Baillière, Tindall & Cox. Pp. 612. 27 coloured plates, 215 illustrations. Price 42*s*.

† *The* 1951 *Year Book of Dermatology and Syphilology.* By Marion B. Sulzberger and Rudolf L. Baer. Chicago: The Year Book Publishers, 1952. Pp. 476. 61 illus. Price 42*s*.

CURRENT LITERATURE.

WEBER-CHRISTIAN DISEASE, A FORM OF SPONTANEOUS PANNICULITIS. R. Kooij. (1950) *Dermatologica*, **101**, 332.

After describing two fresh cases of "relapsing febrile non-suppurative panniculitis" Kooij considers the causes and classification of the panniculitides. He proposes three classes: (1) Reaction to a neighbouring lesion; (2) of known external causation, mechanical or physical trauma; chemical substances; infections; (3) "spontaneous," with two clinical variants, (*a*) Weber-Christian type; (*b*) "nodular vasculitis" type. Incidentally, in the course of his discussion, he expresses the opinion that the name "Darier-Roussy sarcoid" should be dropped.

J. F. S.

OCCUPATION DERMATOSES AND THEIR PREVENTION. S. Tara, A. Cavigneaux and Y. Delplace. (1951) *Arch. Mal. profess.*, **12**, 641.

The authors discuss the prevention of industrial dermatoses along the usual lines. They emphasize the importance of infection, and believe that all cases which persist after removal from work are due to microbic infection and should be treated accordingly. F. F. H.

MELANODERMATITIS FROM BENZANTHRONE. F. Uebelin and H. Buess. (1951) *Arch. Mal. profess.*, **12**, 655.

Typical pigmentation of the face, neck, upper thorax and forearms is described in 25 workmen handling benzanthrone. Probably other factors such as sunlight, friction and hepatic dysfunction play a part in the production of the rash. They believe that attention should be paid not only to personal hygiene and protection of the skin but also to the apparatus used in the production of the substance, particularly so as to avoid handling it dry, and adequate ventilation without draughts. F. F. H.

QUANTITATIVE STUDIES IN EPIDERMAL SENSITIZATION IN THE GUINEA-PIG WITH DINITROCHLORBENZOL. J. R. Frey. (1951) *Dermatologica*, **102**, 1.

Frey used a 1% solution of dinitrochlorbenzol in acetone, which he dropped on to an 8 sq. cm. area of the skin of white guinea-pigs. He estimated the degree of sensitization by application of decreasing concentrations, taking the strength which just provoked an erythema as the threshold-dose, and always using the same area of skin, as previous workers have shown that the threshold is influenced by the area treated. Of 56 animals, 19 showed strong, 35 moderate and 2 slight sensitization. 15 of the moderately sensitized animals retained this degree for 90 days, but the rest of them showed progressively less and less sensitization, 14 of the total dropping to their original standard. 5 animals were desensitized in the spring by massive epicutaneous application of the irritant, but similar attempts in summer failed, which suggests that seasonal factors may play an important part. The method is recommended for investigating potentially irritant drugs, and other factors in the production of dermatitis. J. F. S.

LUPUS VULGARIS AND PSEUDOSARCOMA. R. Michalowski. (1951) *Dermatologica*, **102**, 25.

This records a case of neoplasm on the site of old x-ray-treated lupus vulgaris of the hand. The histological picture closely resembled spindle-celled sarcoma, but serial sections and differential staining established the fact that it was an epithelioma. It is suggested that at least some of the quite small number of cases reported as lupus sarcoma may have been similar.

J. F. S.

INCONTINENTIA PIGMENTI OR PIGMENTARY DERMATOSIS OF BLOCH AND SIEMENS. F. J. Doornink. (1951) *Dermatologica*, **102**, 63.

A description of three new cases of what is commonly called incontinentia pigmenti, with full histological investigations, and follow-up for 3, 8 and 12 years respectively. Exactly the same pigmentary changes are seen at times in a great variety of dermatoses, and Doornink considers it unjustifiable to use the term "incontinentia pigmenti" for the distinctive condition described by Siemens and Bloch, and prefers to call the latter by their name. J. F. S.

SARCOMA IN LUPO. Z. Kovács. (1951) *Dermatologica*, **102**, 72.

This reports two cases of spindle-celled sarcoma arising on lupus vulgaris, which had existed for 28 and 27 years respectively. Roentgen therapy had preceded the onset of the neoplasms by 23 and 25 years. See, however, the abstract of Michalowski's article on squamous carcinoma on lupus, simulating sarcoma. J. F. S.

THE TREATMENT OF ACTINOMYCOSIS. F. Földvári. (1951) *Dermatologica*, **102**, 77.

Of 15 cases of actinomycosis treated with massive (4·5 to 20 mega units) doses of penicillin, 10 were cured, and the remaining 5 improved. In the presence of a penicillin-resistant strain, vaccine therapy and autohaemotherapy are indicated. Sulphonamides, iodine and irradiation are less useful, but may be given a trial where other methods have failed. J. F. S.

A PECULIAR NODULAR CHRONIC DERMATOSIS (? STAPHYLODERMIA CHRONICA). M. Ruiter. (1951) *Dermatologica*, **102**, 139.

A 48-year old woman, otherwise healthy, suffered for 11 years from an eruption of pea- to bean-sized, soft, prominent swellings, of red to livid colour, some smooth, others with a crusted surface, dotted with minute pustules. In places these lesions had run together to form large infiltrations, and in the ano-genital region they resembled condylomata lata. Histologically, the infiltration consisted of histiocytes, round cells and numerous plasma cells. Here and there were minute perifollicular abscesses, with numerous eosinophiles among the leucocytes. In the deeper parts of the sections were clumps of Gram-positive cocci, and *Staphylococcus aureus* could be cultivated in pure culture on every occasion. No other organisms were ever found. This staphylococcus was haemolytic, coagulase-negative and highly penicillin-sensitive. Penicillin injections almost cleared the eruption in ten days, but a series of recurrences demanded ever-increasing dosage, and when last heard of she was as bad as ever. The eruption is thought to be a chronic staphylodermia. J. F. S.

PAGET'S DISEASE OF THE VULVA. C. E. Sonck. (1951) *Dermatologica*, **102**, 151.

A woman aged 61 had on her right labium majus a patch, 4·5 by 3 cm., little swollen or infiltrated, with a granular surface, in places whitish and in others eroded, but nowhere bleeding. Histologically a typical picture of Paget's disease was found. The patient had bilateral ovarian carcinoma, with later diffuse carcinoma of the wall of the pouch of Douglas, but the cutaneous lesion was entirely unlike a metastasis, and seemed to be quite independent. J. F. S.

ANTIBIOTICS IN ACTINIC DERMATITIS. I. Dainow. (1951) *Dermatologica*, **102**, 307.

In two cases of severe actinic dermatitis, which had lasted for some years, haemolytic coliform bacilli and a high porphyrin content were associated in the stools. Treatment with Gantrisin, 3·0 g. daily for a fortnight, suppressed the bacilli, reduced the porphyrin content of the stools and cured the patients. The cure lasted for the rest of the summer, without further treatment. J. F. S.

RESULTS OF SKIN TESTS IN CONTACTS OF BLASTOMYCOTIC PATIENTS. J. Schwarz and G. L. Baum. (1951) *J. invest. Derm.*, **18**, 3.

Six weak or doubtful positive reactions in 48 family contacts and all negative in 58 of the hospital personnel at risk support the view that contagiosity is not high. J. H. T. D.

THE BASAL METABOLIC RATE IN ACNE VULGARIS. S. C. Smith, C. J. Young and D. C. Smith. (1951) *J. invest. Derm.*, **17**, 13.

Of 10,000 patients with "non-metabolic" diseases only 16% had a basal metabolic rate of less than −10. Of the 350 cases of acne it was less than −10 in 42%.

There was no direct relationship between the severity of the disease and "the degree of negativity of the B.M.R." J. H. T. D.

STUDIES IN THE ARGINASE ACTIVITY OF THE SKIN. E. J. Van Scott. (1951) *J. invest. Derm.*, **17**, 21.

The site of maximal arginase activity is the stratum granulosum and upper layers of the rete. J. H. T. D.

STUDIES ON SWEATING. IV. A NEW QUANTITATIVE METHOD OF ASSAYING SWEAT-DELIVERY TO CIRCUMSCRIBED AREAS OF THE SKIN SURFACE. F. Herrmann. P. H. Prose and M. B. Sulzberger. (1951) *J. invest. Derm.*, **17**, 241.

Existing methods of measuring sweat secretion are not only quantitatively inaccurate, but make such a mess of the clothing that patients are reluctant to submit to them.

This device employs Bromphenol blue, a dye easily washed out of anything accidentally stained with it. In any case the dye is confined to the test papers.

These are applied to the skin under a suitable weight, e.g., the laboratory mortar, for 10 seconds. The resulting pattern is compared with that produced by a measured quantity of water spread on standard sandpaper. J. H. T. D.

STUDIES ON SERUM LIPIDS IN ACNE VULGARIS. F. Kalz. (1951) *J. invest. Derm.*, **17**, 273.

The proportion of free cholesterol to cholesterol esters is a little higher in acne. The changes in serum lipoids produced by a fatty meal in patients with acne do not differ from the normal. It is suggested that the effects on acne of sex hormones and of cortisone may be partly due to their action on cholesterol metabolism. J. H. T. D.

LEPROSY AND SARCOID. THE KVEIM TEST IN LEPROSY PATIENTS AND CONTACTS. H. W. Wade. (1951) *J. invest. Derm.*, **17**, 337.

This paper contains a review of the literature (40 references), a fascinating critique of the leprosy-sarcoid controversy, and a detailed comparison of the lepromin and Kveim reactions.

The author, a leprologist, having come into possession of some Kveim antigen took the opportunity of applying the test to 10 cases of leproma selected as affording a full range of the lepromin reaction from negative to strong positive. The series included of course what might well have been transformed tuberculoids, but no true bacteriologically negative tuberculoid cases. The results enable the author to conclude that there are no known grounds for maintaining the hypothesis of an aetiological relationship between sarcoid and leprosy. J. H. T. D.

CUTANEOUS LESIONS OF ALLERGIC GRANULOMATOSIS. C. Strauss, J. Churg and F. G. Zak. (1951) *J. invest. Derm.*, **17**, 349.

Allergic granulomatosis is a syndrome of grave prognostic significance. It occurs in patients who have had asthma. Skin lesions imitate erythema multiforme, erythema nodosum and purpura. The histology may suggest periarteritis nodosa, granuloma annulare, eosinophilic granuloma. The characteristic picture is a nodule composed of strongly altered collagen surrounded by giant cells and histiocytes, but among less specific lesions one may have perivascular cell infiltrations of leucocytes with a tendency to nuclear fragmentation—sometimes indeed extensive enough to impart a bluish hue to the connective-tissue parts of an H. and E. section.

This account would have been more valuable if a clearer clinical picture could have been given of this little known but formidable malady, which belongs to a class unfortunately becoming rather prominent. J. H. T. D.

ALUMINIUM PENICILLIN ADMINISTERED ORALLY: COMPARISON WITH SODIUM PENICILLIN. W. P. Boger and J. O. Beatty. (1951) *J. invest. Derm.*, **17**, 159.

Despite the title sodium penicillin is not mentioned in this paper, which is concerned with a comparison of the water-soluble potassium penicillin with the highly insoluble aluminium penicillin in regard to the development and disappearance of detectable plasma concentrations, accumulations, excretion, etc.

There were no appreciable differences. Presumably sodium penicillin can be expected to behave so very much like the potassium salt that it doesn't really matter what you call it.
J. H. T. D.

THE CHEMISTRY OF THE HUMAN SEBACEOUS GLAND. 1. HISTOCHEMICAL OBSERVATIONS. R. R. Suskind. (1951) *J. invest. Derm.*, **17**, 37.

A review of the questions asked by the student of cutaneous physiology, of possible lines of investigation, of the work that has already been done, and of the literature, is followed by an assessment of the specificity and other qualities of the various fat stains and reagents that are available.

The investigation here described in detail concerned 61 specimens of skin from 24 persons

ranging in age from newborn to 92. The material included juvenile acne and chloracne, sebaceous and other follicular cysts. The results comprise many carefully collected facts, and such conclusions as are offered are illuminated by a careful and lucid account of the steps employed to reach them. The paper is well illustrated with diagrams and microphotographs. I only wish the author could have made it clearer what difference he implies between "anisotropic" and "birefringent." J. H. T. D.

INFLUENCE OF ANTIHISTAMINES ON SKIN TESTS WITH BACTERIAL AND FUNGAL ALLERGENS. S. Epstein. (1951) *J. invest. Derm.*, **17**, 165.

Benadryl and Histadyl were injected together with the following: histamine, streptococcus vaccine and immunogen, staphylococcus toxoid and toxoid-immunogen, trichophytin and oidiomycin. The histamine wheal was suppressed; the immediate wheal and flare ordinarily produced by staphylococcus toxoid was modified, but not the delayed reaction; neither of the reactions in the case of the other bacterial allergens mentioned. It would thus appear that histamine does not play an important role in these reactions except possibly in the case of the immediate one to toxoid. J. H. T. D.

THERAPEUTIC ASSAYS OF THE SKIN AND CANCER UNIT OF THE NEW YORK UNIVERSITY HOSPITAL. ASSAY VI. ADENOSINE-5-MONOPHOSPHATE ("MY-B-DEN") FOR THE RELIEF OF PRURITUS. H. H. Sawicky, N. B. Kanof, D. E. Hackbarth and I. E. Marks. (1951) *J. invest. Derm.*, **17**, 265.

20% of the patients treated were apparently relieved by the remedy but a half of these were equally helped by the dummy. Dummy and remedy were interchanged without the knowledge of either prescribing physician or investigator, but it is not made clear that the drug dispensed in the "linguettes" was itself tasteless. J. H. T. D.

LIPOPHILIC YEAST-LIKE ORGANISMS ASSOCIATED WITH TINEA VERSICOLOR. M. A. Gordon. (1951) *J. invest. Derm.*, **17**, 267.

In an attempt to cultivate the fungus by treating the surface of traditional culture media with oil, the author has become acquainted with a series of lipophilic organisms none of which he feels ably to identify with M. furfur. J. H. T. D.

MULTIPLE HAIRS (FLEMMING-GIOVANNINI). REPORT OF TWO CASES OF PILI MULTIGEMINI AND DISCUSSION OF SOME OTHER ANOMALIES OF THE PILARY COMPLEX. H. Pinkus. (1951) *J. invest. Derm.*, **17**, 291.

This fascinating paper should be read by all who bring any fantasy or imagination to their dermatology. A summary would neither be deserved nor indeed understood by those who would not bother to read it in the original.

A list of "instances in which more than one hair emerges or may appear to emerge from a common opening" might appeal to the systematical; otherwise there is nothing here that could possibly have any practical application. J. H. T. D.

THERAPEUTIC ASSAYS OF THE SKIN AND CANCER UNIT OF THE NEW YORK UNIVERSITY HOSPITAL. ASSAY V. TOCOPHEROLS (VITAMIN E) FOR DISCOID LUPUS ERYTHEMATOSUS AND OTHER DERMATOSES. F. Pascher, H. H. Sawicky, M. G. Silverberg, M. Braitman and N. B. Kanof. (1951) *J. invest. Derm.*, **17**, 261.

Although it has never been demonstrated that any condition in man is due to a deficiency of vitamin E, there was a fashion a year or two ago, based on some alleged success in other collagen diseases, for giving it to patients with L.E.

Anyone who has not remembered to prescribe it lately will find comfort here. J. H. T. D.

THE EFFECT OF CORTISONE ON EXPERIMENTALLY INDUCED CONTACT DERMATITIS. G. D. Baldridge and A. M. Kligman. (1951) *J. invest. Derm.*, **17**, 257.

"If one accepts the idea that a positive patch test reaction to a contact-type allergen reproduces the disease (eczema) in miniature," then the experimental evidence here described or referred to provides no encouragement to the wishful thought that cortisone, destructive of lymphocytes or not, is likely to be a cure for eczema. J. H. T. D.

APOKRINE SWEAT. W. B. Shelley. (1951) *J. invest. Derm.*, **17**, 255.

Apocrine sweat is secreted in response to stress pain fear excitement and adrenalin but not to heat or acetylcholine. A detailed account of the investigation on 30 normal adult males who "had not used antiperspirant preparations for at least 2 weeks prior to the test period" is promised. (Alum is effective.) J. H. T. D.

THE CHEMISTRY OF THE HUMAN SEBACEOUS GLAND. K. Schmidt-Nielsen, R. R. Suskind and E. Taylor. (1951) *J. invest. Derm.*, **17**, 281.

The idea was to avoid contamination, by the lipoid constituents of the covering epithelium, of sebum expressed directly from a hair follicle by means of a comedo expressor. Detailed findings are given more for the purpose of demonstrating the practicability of the methods employed than of providing any information about sebaceous physiology. J. H. T. D.

THE INJECTION AND INGESTION TESTS IN CROSS-SENSITIZATION TO THE PARA GROUP. E. Sidi and S. Dobkevitch-Morrill. (1951) *J. invest. Derm.*, **16**, 299.

Mention is made of previous studies in which it was shown that "of the subjects who had developed dermatitis due to sulphonamides 77% also reacted to paraphenylene diamine, 32% to sulphonamides and 32% to both paraphenylene diamine and sulphonamides. Of 54 subjects who had developed dermatitis due to paraphenylene diamine 54% also reacted to procaine, 44% to para aminophenyl sulphonamide and 35% to both of these substances."

If the reader feels that he has an excuse for not studying the tables he will at any rate gather that sensitization other than epidermal, and cross-sensitisation are familiar in France while almost unknown in the U.K.

Why this should be so is not obvious; for the skins of the British public and forces were literally plastered with sulphonamides and their bellies filled with the pills from about 1939 till penicillin came to the rescue. J. H. T. D.

ADRENOCORTICOTROPHIC HORMONE IN SEVERE ANOGENITAL PRURITUS. J. L. Fromer and F. E. Cormia. (1951) *J. invest. Derm.*, **18**, 1.

First case: 100 mg. for 3 days, 50 mg. for 3 days; cure in 72 hours; maintenance dose of 10 mg.; no relapse in 4 months.

Second case: 100 mg. to start with; cure in 48 hours; dose reduced during 12 days to 5 mg.; no relapse in 5 months.

Third case: 100 mg. for 3 days, 200 for 2 days; dose gradually reduced to zero over 43 days; cure in 15 days; no relapse in 5 months.

Fourth case: 100 mg. for 6 days; cure in 48 hours; 75 mg. for 3 days, 50 mg. for 2 days, 25 mg. for 10 days; dose reduced to zero in 41 days; (? intractable) relapse after 2 months.

The drug is plentiful, the symptom a very common one. How tantalizing not to be told what happened to the fifth and sixth. But one can make a fair guess. J. H. T. D.

SYSTEMA SENSITIVUM INTRA-EPIDERMICUM. J. Ferreira-Marques. (1951) *Arch. Derm. Syph., Berl.*, **193**, 191.

A thorough paper dealing with Langerhans's cells, based on histological work employing a modified gold staining technique. Langerhans's cells are not of epidermal origin, but are Schwann's cells that have wandered into the epidermis; they become intra-epidermal sense-organs, subserving superficial, localized, light pain sensation. M. F.

RADIAL FORMATIONS IN ERYTHEMA NODOSUM. G. Miescher. (1951) *Arch. Derm. Syph., Berl.*, **193**, 251.

Miescher is careful to separate the radial formation described by himself from those Reich recently found in a case of basalioma, and the granulomatous changes which Gellerstedt pointed out in erythema nodosum and which were dependent upon lipophagic processes. M. F.

EOSINOPHILIC GRANULOMA OF FACE. L. Pfleger and S. Tappeiner. (1951) *Arch. Derm. Syph., Berl.*, **193**, 1.

Twelve cases have been found in the literature and the authors add two of their own, the first, they state, in the continental literature; they would like to name the condition "Granuloma Eosinophilum Papulosum Faciei." M. F.

ACTION OF CORTISONE IN EXPERIMENTAL QUARTZ GRANULOMA OF MOUSE. G. Poleman. (1951) *Arch. Derm. Syph., Berl.*, **193**, 257.

The cortisone-treated mice showed delayed connective-tissue reaction compared with control. M. F.

USE OF LEUCOPENIC INDEX IN DIAGNOSIS OF ALIMENTARY ALLERGY. H. Hüllstrung. (1951) *Arch. Derm. Syph., Berl.*, **193**, 42.

Statistical methods showed that the values for leucocytes were not significantly altered by ingestion of possibly allergenic substances. M. F.

DISCUSSION ON PROBLEM OF PHYSICAL ALLERGY IN CONNECTION WITH ONE CASE OF COLD URTICARIA. W. Lindemayr. (1951) *Arch. Derm. Syph., Berl.*, **193**, 161.

A positive P.K. was obtained. Antihistamines were only partially successful. Removal of chronic infected tonsils led to cure. M. F.

TIME OF DISAPPEARANCE OF INTRADERMALLY INJECTED RADIOACTIVE SODIUM CHLORIDE SOLUTION. C. G. Schmucking. (1951) *Arch. Derm. Syph., Berl.*, **193**, 35.

A refinement of the Aldrich and McClure test. M. F.

THE EFFECT OF B.A.L. ON THE ELIMINATION OF THALLIUM ACETATE. S. Lapiere and Mme. Demey-Ponsart. (1952) *Ann. Derm. Syph.*, **79**, 137.

The authors have used thallium acetate for more than a hundred cases of tinea capitis without any serious untoward effects. In three quarters of them epilation was satisfactory. They examined the excretion of thallium in these children and found that this was increased five times by the administration of B.A.L. F. F. H.

THE PRESENT POSITION OF THE TRIAD URETHRITIS-CONJUNCTIVITIS-ARTHRITIS. G. Daguet. (1952) *Ann. Derm. Syph.*, **79**, 149.

A full review is given of the clinical, aetiological and other aspects of this condition, and there is a very complete and useful bibliography. F. F. H.

ULTRASONICS IN DERMATOLOGY. J. Meyer. (1952) *Ann. Derm. Syph.*, **79**, 161.

Ultrasonic waves are a useful form of therapy in conditions involving the deeper layers of the skin and subcutis. They produce both diffuse and selective warming of the tissues. They are particularly valuable in indolent ulcers, scleroderma, and other lesions of the subcutis. The treatment causes considerable pain at times. F. F. H.

THE ROLE OF SOAP IN ALLERGIC OCCUPATIONAL DERMATOSES. E. Sidi, Ch. Mangematin and R. Longueville. (1952) *Arch. Mal. profess.*, **13**, 272.

The authors have carried out tests with allergens, with ordinary soap, and a compound test with a mixture of soap and the allergen. Frequently when the two former tests were negative the latter was positive, showing that soap favours the action of certain allergens on the skin. Soap may injure the skin by producing minor trauma, especially if it contains grit, by its alkaline reaction which upsets the acid mantle of the skin, and by lowering the surface tension thus allowing chemicals to penetrate more easily. They recommend for their patients detergents with an acid reaction, but recognize that the problem of cleansing the skin is a difficult one. F. F. H.

ALLERGIC OCCUPATIONAL DERMATOSES. A. Tzanck, E. Sidi, C. Albahary and R. Longueville. (1952) *Arch. Mal. profess.*, **13**, 153.

In assessing occupational dermatoses the authors emphasize the importance of a careful history and an actual visit to the place of employment. At times a chemical may give a negative patch test when cold, though the patient reacts to it when it is warm or in vapour form. They have carried out tests with warm allergens. At times barrier creams may produce dermatitis and they may also favour the penetration of an irritant into the skin. They feel that too much emphasis has been placed on the importance of secondary infection as a factor in causing persistence of the skin lesions. Frequently they persist because the patient is still coming in contact with the original irritant, even though he is away from work. F. F. H.

THE TRANSFORMATION OF FIBROBLASTS INTO HISTIOCYTES IN THE DERMIS. J. Charpy and A. Stahl. (1952) *Ann. Derm. Syph.*, **79**, 257.

Whilst working with cortisone solutions injected into the skin the authors found that the sodium salt of carboxymethyl-cellulose present in the solution produced tiny granules in the cytoplasm of the fibroblasts, which therefore showed evidence of histiocytic activity.

F. F. H.

HYALURONIDASE IN DERMATOLOGY. R. Leclercq. (1952) *Ann. Derm. Syph.*, **79**, 264.

This is an extensive review with a full bibliography of the knowledge of hyaluronidase. The author suggests that its therapeutic possibilities, which are at present little known, should be more fully explored. F. F. H.

CLIMATIC ENVIRONMENTAL FACTORS IN THE ETIOLOGY OF SKIN DISEASES. G. O. Horne. (1952) *J. invest. Derm.*, **18**, 107.

It is axiomatic that the observer of natural phenomena should never take anything for granted ; and this applies to the words that he uses. It is therefore not easy to credit a writer who spells hidradenitis with a " y " with the habit of trying to find out about the things he does not understand or even the ability to recognize them as such. J. H. T. D.

ENVIRONMENTAL AND INDIVIDUAL FACTORS IN THE ETIOLOGY OF PRICKLY HEAT. G. O. Horne. (1952) *J. invest. Derm.*, **18**, 97.

150 of the 160 who were members of a Military Hospital staff at Karachi during the summer of 1947 supplied the main material.

The evidence fails to support any conclusions beyond those obvious to an experienced layman, namely that a hot moist climate is worse than a hot dry one ; that unless the temperature falls below a critical daily minimum everyone will get prickly heat ; that it tends to be worse in those who are sun tanned and who take much salt, and that it is provoked by exercise. There is nothing here about baths.

We experience once more the complexity of a dermatological problem in which the main factors are obvious and capable of measurement. J. H. T. D.

ATTEMPTS AT PASSIVE TRANSFER OF ALLERGIC ECZEMATOUS SENSITIVITY IN MAN. R. L. Baer and M. B. Sulzberger. (1952) *J. invest. Derm.*, **18**, 53.

White cells were obtained from patients known to be sensitive to such things as turpentine, nickel and paraphenylene diamine. If it is assumed that the specific factor is contained in the lymphocytes, then non-sensitive subjects injected with a suspension of white cells might be expected to develop specific sensitivity temporarily at the site of injection if not all over the skin.

Results were unequivocally negative in 21 of the 27 subjects, but 4 were found to be violently and lastingly sensitized, all of them as it happened to turpentine. Since it was at first thought that the preliminary patch-testing with an unusually allergenic sample might have been the cause, eight new subjects were subjected to the same patch test routine but without result. Another possible explanation is that the leucocytes of easily sensitizable subjects carry not so much the materials of any specific sensitivity as some factor facilitating sensitization in general, and that active sensitization took place at time of the second patch testing. Control tests had been performed with leucocytes of non-sensitized subjects, but not with leucocytes of subjects sensitized to the wrong allergen. J. H. T. D.

TREATMENT OF ALOPECIA AREATA TOTALIS AND UNIVERSALIS WITH CORTISONE ACETATE. C. J. Dillaha and S. Rothman. (1952) *J. invest. Derm.*, **18**, 5.

Three out of 4 patients began to grow scalp hair (but not axillary or pubic hair) after 4 weeks of a daily dose of 150 mg. The single failure is attributed to the disease having begun before puberty.

First case (duration 4 years) : Dosage gradually reduced to 25 mg. during 6 weeks and continued to date (17 weeks).

Third case (duration 10 years) : Initial dosage for 7 weeks, then reduced to 100 mg. and continued to date.

Fourth case (duration 10 years) presumed to be still having 150 mg. daily.

Better a live coot than a dead cockatoo ! J. H. T. D.

SOME ENDOCRINE ASPECTS OF SKIN SENSITIZATION AND PRIMARY IRRITATION. A. Nilzen. (1952) *J. invest. Derm.*, **18** 7.

Cortisone, systemically administered or secreted as the effect of exposure of the body to cold, delays and reduces the intensity of allergic reactions in the skin, but without interfering with their general mechanism. Injected locally into tissues or into their blood supply it has no such effect.

This exemplary paper contains not only a review of the literature, a succinct account of the problems to be solved, a completely documented description of the experiments and a clear summary of the conclusions ; but it is full of observations on the histological and other differences between reactions of the skin to croton oil, cantharidin colchicin and 2, 4-dinitrochlorbenzene. It should be read by all for the pleasure of enjoying a work of art, and it should be noted as a work of reference by those interested in this aspect of dermatology. J. H. T. D.

STUDIES IN THE PERIPHERAL VASCULAR PHYSIOLOGY OF PATIENTS WITH ATOPIC DERMATITIS. W. H. Eyster, G. M. Roth and R. R. Kierland. (1952) *J. invest. Derm.*, **18**, 37.

We are all familiar with the muddy unvarying complexion and the pale lips of atopic subjects, but they have not hitherto been explained in terms of peripheral vasoconstriction. But the changes are by no means limited to the skin. Blood-pressure studies show responses to the cold-pressor test little short of what are ordinarily regarded as hypertensive, and the reaction varies in accordance with the changing intensity of the symptoms.

It was not found possible to confirm the widely held opinion that basal metabolic rates tend to be low.

In addition to an account of the effects of various types of thermal environment on skin temperature, the study of which forms the main subject of this paper, observations are recorded of the differences from normal in the response of the skin to stroking, injection of histamine, etc.

J. H. T. D.

MODIFICATION OF BENNETT'S METHOD FOR THE HISTOCHEMICAL DEMONSTRATION OF FREE SULPHYDRIL GROUPS IN SKIN. H. Mescon and P. Flesch. (1952) *J. invest. Derm.*, **18**, 261.

The staining reactions of Bennett's reagent 1–4, chloromercuriphenylazonaphthol-2 correspond closely with those of sodium nitroprusside : but it has the advantages of permanence and that it also works with ordinary formol-fixed paraffin sections. J. H. T. D.

THE PATHOGENESIS OF TINEA CAPITIS DUE TO MICROSPORON AUDOUINI AND MICROSPORON CANIS : (1) GROSS OBSERVATIONS FOLLOWING THE INOCULATION OF HUMANS. A. M. Kligman. (1952) *J. invest. Derm.*, **18**, 231.

In 8 children an area was prepared by gentle scarification on both sides of the scalp. Into one was rubbed a ground-up culture of *M. audouini*, into the other some infected hairs. The cultures took in only 2 of the cases, the hairs in 5. It was then found that rubbing infected hairs in with the tip of the finger was more effective without scarification. The scalps of 31 children and 18 adults were thus inoculated. 61% of the children and 44% of the adults became infected. Of 6 children resisting infection of the scalp 5 were easily infected on the back.

There is evidently considerable natural immunity in children, for in the population studied —that of a home for mental defectives—only 5% of the children had spontaneously acquired infection.

M. audouini infection runs in children a self limiting course of from 3 to 14 months, in adults 3–5 months. With *M. canis* the susceptibility to infection and duration of attack is about the same for both. It is clear that ringworm is a juvenile malady only because of the care taken by adults not to get their hair ruffled, and of the reduced addiction that comes with advancing years to games based on the snatching off and trying on of other people's hats. Moreover the severity of the disease is so much less that any lesion that does occur may easily pass unnoticed.

A study of the course of the inoculated disease demonstrates limiting factors in regard to the number of patches, their size and duration. After a certain stage has been reached, though it may be well short of spontaneous cure, it becomes feasible to epilate isolated patches. The bad reputation of this line of treatment is thought to be due to the circumstance that it has usually only been attempted in early cases with a solitary patch the least favourable according to the author.

This paper can be read with pleasure as well as profit. J. H. T. D.

ANTIBIOTICS AND FUNGUS INFECTIONS. M. J. Lipnik, A. M. Kligman and Richard Strauss. (1952) *J. invest. Derm.*, **18**, 247.

A majority of patients who suck aureomycin lozenges for a few days develop a stomatitis very similar to that which occasionally complicates ingestion. The nature of this stomatitis is obscure, especially since it sometimes develops within 24 hours of taking the drug for the first time. It is argued that it would take much longer than this to establish a vitamin B deficiency or sensitization. Moreover sensitization of mucous membranes, at any rate without cutaneous involvement as well, is distinctly rare. If the drug is excreted in the saliva it might irritate the mouth, but quite strong concentrations develop in the rectum without local reaction.

That monilia are numerous is no evidence of moniliasis. The authors doubt very much if any clinician with experience of moniliasis would accept these cases of aureomycin stomatitis as the same thing. Even if they are cases of monilia infection there is no evidence that the antibiotics reduce resistance to these organisms. Infections of all kinds are more prone to occur in persons requiring treatment with expensive drugs, and if by disturbing the bacterial ecology a wider opportunity is offered to *Candida albicans*, then that is about all that can be argued for aureomycin being the cause of an infection. *Candida* certainly can be recovered from the mouth or rectum of 80% of all patients taking aureomycin, as contrasted with 7% of normal controls, but stomatitis is comparatively uncommon.

Antibiotics have no effect on the yeast-like pathogens in culture, and administered to mice they have no influence on the course of infection by intraperitoneal inoculation, nor on susceptibility to infection by organisms contaminating the drinking water. J. H. T. D.

REPOSITORY PENICILLIN THERAPY OF PINTA IN THE MEXICAN PEASANT. C. R. Rein, D. K. Kitchen, F. Marquez and G. Varela. (1952) *J. invest. Derm.*, **18**, 137.

This paper contains a concise description of the disease. The response to treatment, clinical or serological, is not nearly as impressive or as rapid as it is in syphilis and yaws. For example it sometimes takes as long as six months for primary, or erythematous, and papular secondary lesions to fade—though the treponeme of course ceases to be recoverable after a few hours. There was clinical healing of all primary lesions, 68% of the secondary and 40% of the late; all the rest, except 10% of the late lesions, were improved. Serological results were less encouraging, but it is expected that a later follow-up will give better figures than the follow-up at the end of 12 months—to which 50% of the patients responded. J. H. T. D.

HISTOLOGIC VARIATIONS IN THE STRUCTURE OF HUMAN ECCRINE SWEAT-GLANDS. J. B. Holyoke and W. C. Lobitz. (1952) *J. invest. Derm.*, **18**, 147.

This is the retrospective study of an accumulated biopsy material of over 4000 slides. The average histopathologist who no doubt has often enough been puzzled by adventitious findings in the sweat-glands will, one fears, be disappointed not to find a good many of the more familiar inscrutabilities among the items described here. J. H. T. D.

RONIACOL TARTRATE IN THE TREATMENT OF DERMATITIS HERPETIFORMIS. O. S. Philpott, A. R. Woodburne and J. A. Philpott. (1952) *J. invest. Derm.*, **18**, 87.

Another pyridine derivative, without the "sulfa" and thus perhaps without the risk to the haemopoietic system, which relieves D.H. at the expense of some flushing. J. H. T. D.

THE LOCAL EFFECT OF 17-HYDROXYCORTICOSTERONE-21-ACETATE (COMPOUND F) ON THE DIAGNOSTIC PATCH TEST REACTION. L. Goldman, R. Preston and E. Rockwell. (1952) *J. invest. Derm.*, **18**, 89.

Nilzen (*J. invest. Derm.*, **18**, 7) demonstrated that locally injected cortisone had no effect in animals on patch test reactions with 2, 4-dinitrochlorbenzene. From the same department comes the observation that compound F inhibits patch test reactions to nearly everything except poison ivy. J. H. T. D.

THE OCCURRENCE OF MELANIN IN THE SEA URCHIN DIADEMA ANTILLARUM PHILIPPI. N. Millot and F. W. Jacobson. (1952) *J. invest. Derm.*, **18**, 91.

The authors recommend this brand of melanin, which is in very good supply, to workers interested. They describe its physical and chemical properties and compare them with those of melanin of mammalian origin. J. H. T. D.

EFFECTS OF CORTISONE ON TISSUE ELECTROLYTE CHANGES DURING ANAPHYLACTIC SHOCK IN THE MOUSE. C. T. Nelson, C. L. Fox and E. R. Freeman. (1952) *J. invest. Derm.*, **18**, 113.

Mice were sensitized by intraperitoneal injections every other day of 1 c.c. horse serum, so that after 15 days they were ripe to be rolled over by a shot of the same in the tail.

The effect of shock seems to be that the tissues take up from the circulation plasma together with its sodium chloride. Potassium is released from tissues other than muscle, and appears in high concentration in the blood. But it is also taken up again to a great extent by the muscles, which were found to contain nearly all of that which remained in a limb removed for analysis.

J. H. T. D.

THE BACTERIAL FLORA OF THE SKIN. D. M. Pillsbury. (1952) *J. invest. Derm.*, **18**, 173.

An *in vitro* study of the reactions of a wide variety of skin microbes to different pH values, fatty acids, lipoid, sebum, the products of other skin bacteria and to desiccation. The last mentioned would seem to be the most consistently unfavourable to them.

This account, succinct and—but for the changing habits of microbes and man—definitive, should now clear the way for a study of the factors which are more rather than less favourable to the microbes, particularly the pathogens. J. H. T. D.

ABNORMAL CYTOLOGY OF EPITHELIAL CELLS IN PEMPHIGUS VULGARIS: A DIAGNOSTIC AID. H. Blank and C. F. Burgoon. (1952) *J. invest. Derm.*, **18**, 213.

Confirms the reliability of the Tzank test and tells you how to do it. Well illustrated.

J. H. T. D.

BLISTER FORMATION AND SEPARATION OF THE EPIDERMIS FROM THE CORIUM IN LABORATORY ANIMALS. P. Flesch, S. B. Goldstone and F. D. Weidman. (1952) *J. invest. Derm.*, **18**, 187.

Blisters are not readily produced in animals. Either the hair follicles anchor the epidermis in too many places or the rete is too fragile to resist the accumulation of fluid.

It is possible that chloroprene dimers assist the process by hyperplastic reinforcement of the epidermis; anyhow, after chloroprene epilation, blisters could be produced in the cadaver by negative pressure or *in vivo* by iodoacetic acid. J. H. T. D.

TISSUE CULTURE STUDIES ON HUMAN SKIN. II. COMPARATIVE EFFECTS OF CERTAIN SPECIFIC CONTACT ALLERGENS ON SENSITIZED AND NON-SENSITIZED HUMAN SKIN. E. T. Everett, C. S. Livingood, C. M. Pomerat and Funan Hu. (1952) *J. invest. Derm.*, **18**, 193.

Haxthausen (1948) is quoted as having shown that skin recently grafted, whether derived from or transplanted to sensitized or normal subjects, does not react to specific allergens. After the grafts have become established they react in the same way as the rest of the skin on which they have been transplanted.

Cultures of reticuloendothelial tissues from a tuberculin-sensitive source are inhibited by tuberculin added to the medium. But in this experiment both the minimum inhibiting concentration and that producing the smallest appreciable effect were the same whether the tissue was derived from a sensitized or from a normal source. J. H. T. D.

EVIDENCE FOR THE OCCURRENCE OF TRUE MITOSES IN BACTERIA AND CERTAIN APPLICATIONS. E. D. DeLamater. (1952) *J. invest. Derm.*, **18**, 225.

So after all even microbes have nuclei which divide in the ordinary way, though of course they are so very small that you can hardly make them out at all. For description of technique and details of observations we are referred to papers by the same author which have not yet appeared in print. J. H. T. D.

HISTOCHEMICAL DEMONSTRATION OF SECRETORY ACTIVITY IN HUMAN ECCRINE SWEAT-GLANDS. W. B. Shelley and H. Mescon. (1952) *J. invest. Derm.*, **18**, 289.

This work confirms the observations of Yuyama (1935) that disappearance of glycogen from the cells of a sweat gland constitutes a reliable index of its activity.

Although the McManus stain was the only one to yield significant findings, the authors describe

their results, in a study based on 130 biopsies with H. & E., fat stains, toluidine blue, and specific stains for acid and alkaline phosphatases, desoxyribonucleoprotein and sulphydryl groups.

The histological differences described in earlier literature, but which did not manifest themselves in the conditions of this series of experiments, are enumerated and discussed.

J. H. T. D.

THE RELATIONSHIP BETWEEN HYPERSENSITIVITY AND IMMUNITY TO VACCINIA. C. D. Baldridge and A. M. Kligman. (1952) *J. invest. Derm.*, **18**, 205.

The failure to "take" of Jennerian vaccination merely indicates a faulty technique: it is certainly not a sign of immunity.

Even if the virus used for a revaccination has been destroyed by exposure to U.V.L. it will still yield a conspicuously positive cutireaction. In fact the reaction is the same in the first 72 hours whether live or dead virus is employed. But after that the reaction with dead virus wanes while the true immunizing reaction continues to become more inflammatory.

There are supposed to be two elements in the reaction—a true immunizing reaction and an allergic one. It appears that in guinea-pigs they can be distinguished by means of a desensitizing course of injections of the killed virus.

Here is a good deal of information about the various reactions both to vaccinia and to tuberculin; but the picture is not complete. What for example happens on revaccination of a subject who has not been immunized but merely sensitized to the killed virus? Is allergy as completely dissociated from immunity as shown by Clawson (1933) in the case of tuberculin?

J. H. T. D.

LOCAL DEPILATORY ACTION OF UNSATURATED COMPOUNDS. P. Flesch and S. B. Goldstone. (1952) *J. invest. Derm.*, **18**, 267.

It should astonish anyone not inured to the marvels of chemistry to discover that vitamin A and squalene (the alleged carcinogenic principle of smegma) should be halfway between isoprene and caoutchouc, just as certain depilatory dimers of chloroprene represent a fugitive phase in the synthesis of neoprene rubber. During the war inhalation of chloroprene dimers caused a temporary alopecia in rubber workers. While these unstable compounds are effective local depilatories in the experimental animal, so also are vitamin A, squalene, and for that matter the sebum of male college students and children—the last indeed to a greater extent than could be accounted for by its content of squalene.

Chloroprene dimers merely irritate human skin without causing a fall of hair, but can it be that the sebum itself rather than the diversion of resources to its production is the cause of baldness?

J. H. T. D.

PATHOGENESIS OF THE JARISCH-HERXHEIMER REACTION. A REVIEW OF CLINICAL AND EXPERIMENTAL OBSERVATIONS. Albert Heyman, Walter H. Sheldon and Lilian D. Evans. (1952) *Brit. J. vener. Dis.*, **28**, 2.

A very comprehensive and well illustrated article in which the clinical and experimental observations on the pathogenesis of the Jarisch-Herxheimer reaction are reviewed. The available evidence indicates that the reaction should be regarded as a hypersensitivity phenomenon of the delayed type.

W. G. A.

VISCERAL ANALGESIA: A CASE OF MASKED ABDOMINAL CATASTROPHE IN TABES DORSALIS. A. S. Grimble and G. W. Csonka. (1952) *Brit. J. vener. Dis.*, **28**, 2.

A case is described of silent gastric perforation in a tabetic. The literature of this subject is briefly reviewed. The mechanisms of visceral pain of particular interest are recapitulated and the occurrence of visceral analgesia discussed. The authors feel that cases of tabes dorsalis with extensive, bilateral, sensory loss should be investigated with special regard to visceral disease, since the progress of such a condition may be silent.

W. G. A.

NEWER ANTIBIOTICS IN THE TREATMENT OF VENEREAL DISEASE. Raymond C. V. Robinson. (1952) *Brit. J. vener. Dis.*, **28**, 2.

The author primarily discusses the effects of aureomycin, chloramphenicol and terramycin on the five venereal diseases, but he also refers to the action of cortisone in experimental and clinical syphilis, and to the recent advances in the treatment of yaws. The value of the publication is enhanced by an instructive graph and three statistical tables, and should be read in detail by all practising venereologists.

W. G. A.

ANTI ALLERGIC ACTION OF LOCAL ANAESTHETICS AND ANTIHISTAMINICS ON THE TUBERCULIN REACTION. J. Lecomte. (1952) *Acta Allergol.*, 5, 88.

When injected simultaneously with tuberculin, local anaesthetics and antihistaminics regularly inhibit the human tuberculin skin test. These substances are probably acting by suppressing the inflammatory reaction. H. T. H. W.

DERMATOMYOSITIS: A CASE REPORT. H. G. H. Richards. (1952) *Edin. Med. J.*, 59, 325.

Dermatomyositis in a man of 36 is reported. Photomicrographs of sections of muscles, one month before death, show the usual changes seen in this disease. Endarteritis of the small arteries and arterioles in the muscles was found *post mortem*. C. D. E.

INFECTIONS AND PSORIASIS. A. Norholm-Pedersen. (1952) *Acta derm.-venereol., Stockh.*, 32, 159.

Psoriasis has a characteristic rhythmical course with eruptive phases of guttate elements alternating with periods during which the "normal" intervening skin does not differ in its mode of reaction from the skin of normal patients.

Mechanical, thermic and active stimuli can produce the typical reaction (Köbner phenomenon) in eruptive phases but not in the quiescent phase.

A necessary condition for the occurrence of new elements seems to be an "internal" releasing cause affecting the skin, so that after a latent period of 3–12 days the above stimuli can produce the conditions necessary for psoriasis to develop.

Infection can be one of three internal releasing causes. In a series of 133 cases of psoriasis, provoking infections were demonstrated anamnestically in 44%, $\frac{3}{4}$ of which total had been caused by streptococci, most frequently infections of the throat.

In one-third of the cases a rise of autostreptolysin titre was found. Focal infections seem to be most frequent in the younger age group and more in women than in men, often producing the first eruption of psoriasis. G. A. H.

BUCKY-RAYS AND OTHER ULTRASOFT X RAYS. E. Ebbehoj. (1952) *Acta derm.-venereol., Stockh.*, 32, 117.

A series of depth-dose curves for Bucky (Grenz) rays and other soft x-rays demonstrate the great increase in penetration accompanying increase in voltage and filter value. The softer the rays the less the risk of radio-necrosis. The selection of the quality of rays for a certain treatment depends upon the thickness of the diseased part and the depth effect required. As a general guide x-rays with a skin H.V.L. varying between a value equal to the thickness of the diseased part and two-thirds of this thickness should be used. Most skin disease fall within limits of skin H.V.L. of 1·6 or less. Grenz rays of skin H.V.L. of 0·1–0·4 mm. are indicated for diseased parts less than 1 mm. thick. G. A. H.

ACTH-TREATMENT OF GOLD AND ARSPHENAMINE DERMATITIS. Fl. Reymann, P. Sobye, E. Gilg, M. Schwartz and H. Brodthagen. (1952) *Acta derm.-venerol., Stockh.*, 32, 131.

ACTH-treatment produced excellent results in exfoliative dermatitis caused by Sanocrysin (3 cases) and arsphenamine (1 case). The urinary excretion of gold does not increase during ACTH-treatment. G. A. H.

QUANTITATIVE DETERMINATION OF THE SKIN LIPID SECRETION IN THE DORSAL REGION OF THE HAND. S. G. Johnsen. (1952) *Acta derm.-venereol., Stockh.*, 32, 168.

The average secretion of lipid per cm.^{2} of skin on the dorsum of the hand was 13 micrograms. No effect of age on the secretion was seen in 75 cases determined. The marked difference of sebaceous secretion on the forehead and the dorsum of the hand is commented upon. G. A. H.

AUREOMYCIN AND CHLOROMYCETIN IN THE TREATMENT OF HERPES ZOSTER. G. Schaffer and I. B. Svendsen. (1952) *Acta derm.-venereol., Stockh.*, 32, 184.

No difference was apparent after the exhibition of aureomycin or chloromycetin in the course of herpes zoster in the experimental and control group neither in regard to the duration of the skin lesion nor the neuralgias. G. A. H.

ACTH-TREATMENT IN PEMPHIGUS. Fl. Reymann, P. Sobye, M. Schwartz and H. Brodthagen. (1952) *Acta derm.-venerol., Stockh.*, **32**, 136.

All 8 patients suffering from pemphigus showed good adrenocortical response to ACTH stimulation and 4 of these were symptom-free 3–6 months after treatment. One patient died 17 days after treatment symptom-free, and the other 3 became symptom-free during treatment but relapsed a few days after discontinuing therapy with considerable improvement in their general condition. Universal pigmentation was seen in all save 2, which pigmentation was much more marked than has been seen in protracted ACTH treatment of patients with other skin diseases.
G. A. H.

HIGH-PROTEIN DIET FOR SKIN DISEASES. H. Brodthagen. (1952) *Acta derm.-venereol., Stockh.*, **32**, 174.

A high protein diet appears to have no value in skin disorders of patients with a normal state of nutrition. Very large dose of protein of high biological value given to patients with protracted weeping or desquamative skin disease did not improve skin disorders despite fairly rapid increase to normal serum-protein values. G. A. H.

IMMUNO-ALLERGIC RELATION BETWEEN TUBERCULOSIS AND LEPROSY. Jose M. M. Fernandez. (1952) *Actas Dermo-sif., Madrid*, **43**, 471.

Those with a tuberculous infection, though free from leprosy, will respond positively to a lepromin test if their reaction to tuberculin is +. Inoculation of B.C.G. into children will convert the lepromin test from − to +. The author repeatedly injected lepromin into 15 children with a + Mantoux reaction, after which the latter reaction became − in 9 of them. He suggests that lepromin could be used to desensitize tuberculin hyperergic patients, and that leprosy contacts with a − lepromin reaction should be inoculated with B.C.G. to make them resistant to a development of lepromatous leprosy. G. W. B.

LOCALIZATION IN DARIER'S DISEASE. C. Aguilera Maruri. (1952) *Actas Dermo-sif., Madrid*, **43**, 528.

A report of the development of a classical form of this disease only on the right calf which 6 months earlier had been the site of an itchy exudative dermatosis. G. W. B.

PYOGENIC INFECTIONS TREATED WITH NEOMYCIN. C. S. Livingood, S. Nilasena, W. C. King, R. A. Stevenson and J. F. Mullins. (1952) *J. Amer. med. Ass.*, **148**, 334.

Neomycin, which is produced by a strain of streptomycetes, is a basic compound, heat stable and freely soluble in water. It does not lose its potency on keeping in any vehicle. Its antibacterial range is unusually wide, and includes almost all the bacterial organisms encountered in skin infections. Two hundred and sixty-four patients with cutaneous pyogenic infections were treated with neomycin in either a petrolatum-lanolin base (5 mg. per gramme) or in aqueous solution (1 to 5 mg. per c.c.). There was no sensitization and no primary irritation, and good results were obtained in a high proportion of cases. Neomycin is considered to be the treatment of choice for cutaneous pyogenic infections except those caused by haemolytic streptococci.
A. J. R.

USE OF NEOMYCIN IN DERMATOLOGY. R. L. Kile, E. M. Rockwell and J. Schwarz. (1952) *J. Amer. med. Ass.*, **148**, 339.

Topical neomycin was employed in 675 patients with skin infections, and was found in the majority to be more effective than any other topical agent. Some haemolytic streptococcal and pyocyaneus infections did not respond. As the sensitizing index is low this antibiotic is valuable for topical therapy. A. J. R.

TREATMENT OF CARBUNCLES WITH LOCAL PENICILLIN INJECTIONS. W. A. Dale and C. A. Haug. (1952) *J. Amer. med. Ass.*, **149**, 527.

A series of 14 carbuncles treated by injecting penicillin around the periphery of the lesions just beyond the palpable border of induration healed more rapidly and required shorter hospitalization than previous series of cases treated without penicillin or with systemic penicillin only. A total of 300,000 to 500,000 units of penicillin was injected once or, if necessary, on several consecutive days. The solution was prepared by mixing one million units of crystalline penicillin with 5 c.c. saline and 5 c.c. of 1% or 2% procaine solution. A. J. R.

JARISCH-HERXHEIMER REACTION FOLLOWING PENICILLIN THERAPY IN CASE OF SYPHILITIC AORTITIS. J. M. Butterly and L. Fishman. (1952) *J. Amer. med. Ass.*, **148**, 370.

A woman aged 43 with syphilitic aortitis involving the coronary ostia developed a fatal Jarisch-Herxheimer reaction on receiving 300,000 units of penicillin for an upper respiratory infection.
A. J. R.

RHINOSCLEROMA SUCCESSFULLY TREATED WITH STREPTOMYCIN. D. A. Russell, J. M. Moore and L. H. Mattman. (1952) *J. Amer. med. Ass.*, **1948**, 642.

A case of rhinoscleroma responded promptly to streptomycin and there was no recurrence after 3 years. *Klebsiella rhinoscleromatis* rapidly disappeared from the lesions, which possibly lends support to the view, not everywhere accepted, that it is the cause of the disease.
A. J. R.

CONGENITAL ECTODERMAL DEFECT WITH AMASTIA. R. A. Osbourn. (1952) *J. Amer. med. Ass.*, **148**, 644.

Of approximately 80 cases of congenital ectodermal defect which have been reported, only 4 others showed amastia. A new case which is fully described was a male, as were the other 4 cases. All were anhidrotic with a saddle nose, partial or complete anodontia and partial alopecia.
A. J. R.

TREATMENT OF ATOPIC DERMATITIS WITH CORTISONE. T. H. Sternberg, V. D. Newcomer and I. H. Linden. (1952) *J. Amer. med. Ass.*, **148**, 904.

Twenty-four severe cases of atopic dermatitis were treated with cortisone intramuscularly, orally and topically: 200 mg. to 300 mg. daily for 10 to 14 days either orally or intramuscularly controlled all cases except one who was intolerant to cortisone but responded to ACTH. The intramuscular route was the most effective. Topical application was of no value. All cases relapsed when treatment was stopped. The relapse was sometimes accompanied by a depressive reaction. An unusually high maintenance dose is required and there is a tendency to addiction. Cortisone is contra-indicated in atopic dermatitis except perhaps in very severe cases which all other treatment has failed to arrest, and then administration should be limited to 4 to 6 weeks.
A. J. R.

TREATMENT OF SUPERFICIAL DERMATOMYCOSES WITH ASTEROL DIHYDROCHLORIDE. H. G. Ravits. (1952) *J. Amer. med. Ass.*, **148**, 1005.

Asterol dihydrochloride is 2-dimethylamino-6-(β-diethylaminoethyoxyl)-benzothiazole dihydrochloride. It was tried in 100 superficial dermatomycoses in 5 % concentration in carbowax, in 70% alcohol or in a dusting powder. The results in tinea pedis were satisfactory but some cases failed to respond. The results in onychomycosis were unsatisfactory. A. J. R.

SPONTANEOUS HEALING OF SICKLE-CELL ANAEMIA ULCER IN PREGNANCY. T. Cornbleet. (1952) *J. Amer. med. Ass.*, **148**, 1025.

A negress aged 20 with sickle-cell anaemia developed leg ulcers which healed during pregnancy, despite persistence of the sickling trait, and broke down 3 months post partum. The ulcers or their scars are found in three quarters of all adults with sickle-cell anaemia. They appear during adolescence, and are situated around the ankles or on the lower leg. A. J. R.

ACQUIRED ICHTHYOSIS IN HODGKIN'S DISEASE. J. L. Welch and E. Epstein. (1952) *J. Amer. med. Ass.*, **148**, 1221.

Two previous cases have been reported of ichthyosis in Hodgkin's disease and one of ichthyosis in lymphosarcoma. There is now a report of a man aged 55 with a 5 months' history of dryness cracking and burning of the skin. A single large lymph-node was found in the left axilla and the patient was proved to have Hodgkin's disease. A section of the skin showed the changes of ichthyosis. A. J. R.

HUMAN MELANOGENESIS: CYTOLOGY AND HISTOLOGY OF PIGMENT CELLS (MELANODENDROCYTES). S. William Becker, jnr., Thomas B. Fitzpatrick and Hamilton Montgomery. (1952) *Arch. Derm. Syph., Chicago*, **65**, 511.

The authors object to the term "melanoblast" for the melanin-forming dendritic cells of the epidermis as it implies immaturity of the cell and suggest "melanodendrocyte" or "melano-

genocyte " as more suitable names. These cells, they show, form a syncytium at the level of the basal layer of the epidermis. They confirm that these cells are found only at this level. Their apparent presence at a higher level is produced by distortion of the specimen in fixing or section parallel to a vertical prolongation of the epidermis, errors which serial sections would obviate. Dendritic processes of these cells extend as far as the granular layer, which may contain melanin granules released from these processes. Melanin in the deeper layers is always within the melanodendrocytes ; its apparent presence in connection with prickle cells is due to normal staining methods leaving the dendritic processes, within which it actually lies, unstained.

Non-pigmented melanodendrocytes are present in human epidermis, and there is a direct correlation between the darkness of the skin and the number of melanin granules these cells contain. No variation was seen in the number or shape of these cells in various parts of the body nor at different ages. Their number in normal, vitiliginous and albino skin was constant. The variation in pigment is therefore due, not to a variation in number but in physiological function of these cells. In skin stimulated by light or thorium X there is an increase in their number (division observed was by mitosis), and evidence of tyrosinase activity. No tyrosinase activity was demonstrated in any other epidermal cell.

It is shown that the Langerhan's cell is identical with the melanodendrocyte.

The whole article deserves attention. It is a careful record of careful work. Adequate details of all the procedures used are given. J. K.

CLINICAL EXPERIENCES WITH CORTISONE AND CORTICOTROPIN (ACTH) IN SOME CUTANEOUS DISEASES. Karl Steiner and Lawrence Frank. (1952) *Arch. Derm. Syph., Chicago.* **65**, 524.

After a brief review of the literature, details of 26 patients treated with these drugs and an addendum mentioning 46 cases subsequently treated similarly, the authors conclude by emphasizing that stricter indications should be applied to their use in dermatology. They should be given only if they are life-saving or life-prolonging, to help the patient over a " hump " in severe acute eruptions and sometimes for subjective relief in self-limited conditions of short duration. They should not be used in chronic and recurrent diseases. J. K.

PRE-L.E. CELL: A STAGE IN DEVELOPMENT OF THE L.E. PHENOMENON. Melvin H. Stich, Frederick Feldman and Maurice Morrison. (1952) *Arch. Derm. Syph., Chicago,* **65**, 581.

The authors were able to observe in a case of acute disseminated lupus erythematosus what they consider to be stages in the formation of the L.E. cell.

The nucleus of a normal polymorphonuclear cell becomes pyknotic, then fragmented (this cell containing deeply staining fragmented nuclear material they term the " pre-L.E. cell ") the fragments are extruded and phagocytosed by other polymorphonuclear cells in which they swell, become paler and eosinophilic, and push the nucleus of the ingesting cell to its periphery.

J. K.

DO ROENTGEN-RAY TREATMENTS AS GIVEN BY SKIN SPECIALISTS PRODUCE CANCERS OR OTHER SEQUELAE ? Marion B. Sulzberger, Rudolph L. Baer and Alexander Borotra. (1952) *Arch. Derm. Syph., Chicago,* **65**, 639.

This careful report deals with a follow-up of 1000 dermatological patients who had had, 5 to 23 years previously, x-ray treatment of known dosage, and 1000 control dermatological patients who had had none. The dose of x-rays per sitting varied from 37·5 r to 1800 r, the number of treatments per site from 1 to 20 and the number of sites irradiated from 1 to 25. X-ray sequelae were found in 28 patients. In 25 who had been treated for skin cancers with a total dose of 1500 to 5000 r the sequelae were no more than to be expected from such dosage. The same effect was noted in one patient who had had 4500 r for keloids. One patient who had had 1200 r for acne and one 1087·5 r for eczema showed mild sequelae. Epithelioma was found in 6 patients in this group, but only one was on an irradiated area and in the control group 9 patients showed epithelioma.

The authors conclude that in the dosage normally used for skin cancers mild sequelae are produced in 25% of cases. There is no evidence that sequelae are produced by totals of 1000 r or less in fractional doses of the qualities generally employed, nor is there any evidence that cancers, x-ray ulcers or other dangerous sequelae are produced even by the largest doses normally considered permissible. J. K.

OBSERVATIONS ON LYMPHOGRANULOMA VENERUM. F. W. Jacobson. (1952) *W. Ind. med. J.*, **1**, 158.

This is a most clear and useful account. Males are affected with the classical inguinal buboes some eight times as often as females, yet the "tertiary" elephantiasis genito-rectalis, going on to stricture formation, is much commoner in females. Half the cases with inguinal lesions also have palpable iliac glands. There is a cross immunity between diseases caused by the lymphogranuloma-psittacosis group of viruses, so the Frei test may be positive in psittacosis. The best antigen for diagnosis is now prepared from infected yolk-sacs and used as a complement fixation test. Aureomycin, chloramphenicol and terramycin are all extremely effective in treatment. It is best to give two or three 10-day courses with a week's rest between.

Among general manifestations of the disease are urticarial eruptions, erythema multiforme and erythema nodosum (especially if sulphathiazole is given). The eyes and joints may be affected. R. D. S.

CHROMOBLASTOMYCOSIS IN JAMAICA. E. S. Shoucair, C. C. Gordon, L. S. Grant and K. R. Hill. (1952) *W. Ind. med. J.*, **1**, 211.

A negro who had lived all his life in Jamaica cut his left index finger with a saw. A month later a nodule appeared at the site of the cut. This developed by continuity into a papillomatous mass extending on to the middle and ringfingers. Secondary infection and ulceration followed. Within the next few months numerous other nodules appeared on the dorsum of the left hand, wrist and forearm. These were dark red, hard, with an infiltrated base "which encroached along the paths of lymphatic drainage." Later the surface became warty. There was no irritation, no tenderness and no constitutional upset.

There was an eosinophilia of 7·5%. Histologically the granuloma showed giant-cell formations and micro-abscesses. Brown-coloured spores, often in clumps, lay free and within the giant cells. The spores showed division by cross wall formation, which was considered diagnostic of *Phialophora* (*Hormodendrum*) *pedrosoi*. The fungus was cultured at room temperature on Sabouraud's medium and identified.

Large doses of iodides led to some regression of the lesions. Penicillin, aureomycin and x-rays were without effect.

This is the first case to be reported from Jamaica, although the condition is known to occur widely throughout the Americas, and cases have been reported from Japan, the East Indies, Russia, Algeria and South Africa. The infection does not generalize throughout the body and so is not fatal, but complete cure is rare. Excision of the lesion in an early case probably offers the best hope. R. D. S.

A CASE OF XANTHOMATOSIS CUTIS ACCOMPANIED BY GERONTOXON JUVENILE. G. Weber. (1952) *Derm. Wschr.*, **126**, 729.

Photographs illustrate the more or less symmetrical eye and extensive skin lesions, mainly over the joints, in this child aged 12. The findings are given in detail. Of particular interest are the high BSR (80/101 mm.) and the high cholesterinaemia (total 661 mg.%, free 330 mg.%, cholesterinester 331 mg.%). An electrophoretic investigation of the serum (Antweiler method) showed much increase in β globulin. An attempt was made by Grassmann's method of electrophoretic investigation to estimate the fixed lipoid in the β globulin fraction as it is extracted by this method. A comparison of the results obtained by the two methods was held to give a rough estimate of the lipoid fraction: the difference obtained seemed too great to be accounted for by errors in technique. An increase in fixed lipoid is held by some to account for the increase in the β globulin fraction in this condition. With inosit 1 g. by mouth daily the lesions were found to have improved when the patient was seen 5 weeks later. The yellow colour was less marked, and lesions were now of a slightly reddish livid hue and of somewhat smaller size. The arcus senilis had also diminished in extent. M. S. S.

THE THERAPY OF LOWER LEG LESIONS WITH BANDAGES. R. Brett and E. Lunkenheimer, with a foreword by E. Keining. (1952) *Derm. Wschr.*, **126**, 733.

The authors, acknowledging their indebtedness to the work of the late N. Brann, discuss lower leg lesions, and point out that many such lesions may owe their localization or persistence to hypostasis. Relief of this by ambulatory treatment with bandages may give considerable benefit. Among the less usual lesions discussed from this aspect are lichen planus verrucosus, Bazin's disease, lupus vulgaris and myxoedema tuberosum. The elastic and the inelastic zinc gelatine bandages have their own particular indications. The aim may be to increase tone, to compress

or to relieve pressure. The use of a sorbo rubber pad, a window to enable the application of dressings and self-massage by the patient are mentioned. Sometimes it may be desirable to combine the types of local appliance, e.g., an elastic bandage over a compression pad or layer with an inelastic supporting bandage of mull or stiff gauze superimposed. M. S. S.

CHAOUL CONTACT X-RAY THERAPY OF HYPERTRICHOSIS OF THE BEARDED REGION IN WOMEN, OF CHONDRO-DERMATITIS NODULARIS CHRONICA HELICIS AND PYOGENIC GRANULOMA. W. Dölcher. (1952) *Derm. Wschr.*, **126**, 771.

The author describes in detail with photographs of apparatus and clinical appearances his technique in the treatment with contact x-ray therapy of severe hypertrichosis of male type in women. Only small fields can be irradiated at a time with three successive daily doses up to a total of 2200–2600 r, so that 7 months may be required for completion of treatment. The narrow hairy margin between the irradiated fields is treated with diathermy. The dermatitis following 3 weeks after irradiation clears in 3–4 weeks. Downy hair persists. Other side-effects may be superficial atrophy and small brownish flecks which disappear within a few weeks. Patients have been under observation for 3 years—insufficient time to exclude late sequelae as the author states. Contact x-ray therapy of chondrodermatitis nodularis chronica helicis was successful in 4 cases. Treatment was given on four successive days, up to a total of 3200 r. Pyogenic granuloma also in four cases responded to 6–10 doses of 200–250 r given at four-day intervals. M. S. S.

ERYTHEMA MULTIFORME AND ITS TREATMENT. R. Brett and F. Sprenger. (1952) *Derm. Wschr.*, **126**, 781.

The authors favour the view that Baader's dermato-stomatitis, ectodermose-erosive pluriorificielle Bender-Fiessinger and Stevens-Johnson syndrome are variants of erythema multiforme, which has two main types: the classical non-relapsing, with sore throat; and the relapsing, typus annuus, not so clearly defined, involving mucous membranes alone or predominantly. They find in severe cases of the latter type a combination of nicotinic acid amide, pantothenic acid and folic acid leads to dramatic improvement within a day or two. They make no mention of the use of anti-histamines in erythema multiforme. M. S. S.

PAGET'S CARCINOMA. W. Ceelen. (1952) *Derm. Wschr.*, **126**, 820.

It is not certain if a Paget's disease of the nipple exists apart from a Paget's carcinoma. Paget's disease of the nipple is not common, but every pathological specimen sent to the author as such has proved to be carcinoma if Paget cells were present. He describes two instances of carcinoma of the breast with metastases. The histological appearances of the skin were those of Paget's disease, although in one, of very short duration, there had been no clinical evidence of its presence. He concludes from his histological study that Paget cells develop in the milk ducts or other tubular structures of the breast, and reach the basal layer of the epidermis by the invaded lymphatics at the dermo-epidermal junction. Typical Paget cells were not found in the epidermis above deeper lymphatics packed with cancer cells, but only in sections of the skin when these reached the dermo-epidermal junction. In his opinion the Paget cell always spells malignancy. M. S. S.

CAN THE SCHIZOGENETIC THEORY OF EPIDERMOID SKIN NAEVI BE EXTENDED TO A GENERAL ONCOGENESIS OF STRUCTURAL ABNORMALITIES AND TUMOURS? E. Hoffmann. (1952) *Derm. Wschr.*, **126**, 824.

The author was able to show a Spiegler's endothelioma in a patient of his to be naevo-epithelioma. The presence of Spiegler's cylindroma with Brooke's tricho-epitheliomatous naevi he has already explained genetically and likewise demonstrated those of Pick-Juliusberg v. Franqué and Haslund to be of epithelial nature although seeming to be endotheliomas. To his mind also the hyaline spaces in cylindroma arise from cells which provide the hyaloid membrane of hair. His schizogenetic theory advanced for neurinomatosis was still further established in a second of syringocystadenoma papilliferum. He considers the epithelial nature of basalioma of great importance, being less malignant than spinalioma, which may metastase. They stem from the mother-cells of the skin adnexae and reveal themselves as tricho-steato- and syringo-epithelioma and are of slight or semi malignancy. They can be very destructive locally, e.g., rodent ulcer, but almost never metastase.

Cohnheim's theory suggests to the author that the potency of the mother-cells in the skin adnexae might account for the manifold variety of the later possible structural deformities, and

even for " cancer " cells ; mother-cells responsible for the hair metabolism in particular because of the very changeable processes of progression or regression. Melanoma of the eye is an illustration of the time potency may remain latent, as metastases in the liver may occur many years after apparently complete removal of the eye tumour.

The author gives six degrees of potency, beginning with complete or total potency leading to homologous twins or monsters, and ending with unipotency responsible, for example, for simple homogeneous adenomas and naevi. The potency of the cells depends on their ripeness or unripeness. Chorion-epithelioma in men which can give rise even to a positive pregnancy reaction in the urine is an example of unripeness.

With regard to cancer, it has been shown in the mouse that carcinogenic substances may cause such rapid growth that it is difficult to determine the origin of the cells. Perhaps in the mouse as in the human being rest cells may play a part in the reaction. M. S. S.

A CASE OF UNIVERSAL EXANTHEM CAUSED BY TRIBOLIUM DESTRUCTOR. H. Boas. (1952) *Derm. Wschr.*, **126**, 837.

A widow aged 74 developed a widespread dull red intensely itchy urticarial eruption. Minute punctae were visible on close inspection, and a patch test made from crushed beetles (*Tribolium destructor*) was strongly positive. There was no recurrence after disinfestation of her house.

M. S. S.

A POSSIBLE NEW TREATMENT OF SEBORRHOEIC SKIN COMPLAINTS. I. Niemand-Anderssen. (1952) *Derm. Wschr.*, **126**, 838.

The author bases his opinion on an experience of 100 patients, 68 with acne vulgaris, 15 with seborrhoeic eczema and 17 with rosacea. A weekly injection of vitamin B_{12}, 6 to 12 in all, appeared to improve the general condition, including the haemoglobin and red-cell count. The skin, apart from blackheads, also improved in most patients. Acne vulgaris seemed aggravated in some by the first three injections but later responded to the therapy. The improvement was found to persist in some patients reviewed after 18 months. Apart from the usual dietetic restrictions no other treatment was given. M. S. S.

JUSTIFICATION FOR THE CONCEPTION " PEMPHIGUS JUVENILIS." R. Brett, B. Rathjens and F. Sprenger. (1952) *Derm. Wschr.*, **126**, 873.

The authors think it is sometimes difficult or impossible to distinguish between pemphigus and dermatitis herpetiformis in children as well as in adults. The two conditions appear at times to merge into each other, although, when localized to the mouth only, the diagnosis is pemphigus, not dermatitis herpetiformis. In spite of the not infrequent difficulty of diagnosis and the benign course of pemphigus in children the authors would not be prepared to include all under the title of dermatitis herpetiformis, neither do they like the term pemphigus chronicus, since the prognosis in children is so much better than that in adults. They recommend the term pemphigus juvenilis. M. S. S.

ACNE CONGLOBATA. H. Langhof. (1952) *Derm. Wschr.*, **126**, 897.

The author notes that in addition to the usual signs of acne conglobata 7 of his 8 patients had keratosis pilaris ; a cutis laxa-like skin of the back was also a feature. A histological specimen showed a basalioma-like overgrowth of the epithelium with follicular hyperkeratosis and horny cyst-like crypts in the neighbourhood of which collagen and elastic fibres were deficient. All the patients were men (a father, 3 sons and 2 cousins). The fact that acne conglobata is a complaint of men suggests an endocrine basis, and the author obtained good results with oral oestrogen therapy in one patient. Overdosage with ACTH, also by reducing the sulphydrils according to some, leads to hyperkeratosis and acne-like lesions. One of his patients had acromegaly with very small testicles. The redox potential of 2 patients investigated showed a shift to the positive or oxidative side ; this is held to account for the diminished resistance to infection. Porphyrin found in the sebaceous glands of many acne patients greatly increases oxidation, and sulphydril blockers like chlorine bromine and iodine aggravate acne. Phenol compounds in the blood of patients with constipation and indicanuria as found in this investigation are said to be accompanied by a strong positive potential. The adrenals are very important regulators of metabolism, particularly in association with the sex hormones.

The author recommends that therapy be aimed at reducing the action of the virilizing suprarenal hormone and raising the redox potential by internal and external means ; correction of constipation ; giving butter and cod liver oil, with their unsaturated fatty acids, and vitamin A reducing substances, rather than margarine ; vitamin C and the B complex in the form of fresh

food; additional vitamin A in water solution. To prevent inactivation of these reducing substances in the presence of a dysbacterial alimentary tract acidol pepsin, a lacto-vegetarian diet or *B. coli* vaccine by mouth can be given if indicated. Externally fresh air and sunlight or general ultra-violet light. M. S. S.

ADVANCES IN THE TREATMENT OF SKIN DISEASES. J. E. M. Wigley, C. D. Calnan, R. H. Meara and R. H. Seville. (1952) *Practitioner*, **169**, 354.

Silicones have been used in barrier creams in America. They effectively protect the skin from water and substances, notably alkalis, dissolved therein.

Ion exchange resins have been found effective in removing ammonium and other alkali ions and restoring the pH of the skin to normal. Neither silicones nor the appropriate ion exchange resins are at present obtainable in this country.

Penicillin lotion, 1000 units per ml., does not seem to sensitize the skin so readily as penicillin ointment, and may be of value in superficial pyococcal infections.

Streptomycin has been used with some success in cases of lupus vulgaris, being usually given with para-aminosalicylic acid.

Aureomycin has been found effective as a local application in pyogenic infections of the skin. A 1% concentration in emulsifying ointment B.P. makes a satisfactory application. By mouth it has been reported to be of value in certain virus infections, e.g., recurrent herpes simplex, herpes zoster and Kaposi's varicelliform eruption. Reports of its value in bullous eruptions are not uniformly favourable.

Chloramphenicol has given results very similar to those given by aureomycin. Both of these drugs may disturb the normal relationship of the flora of the gut and mucous membranes, so that monilia may multiply as a result and cause severe stomatitis or anogenital pruritus and occasionally lung infections.

Diamino-diphenyl sulphone appears to be the most potent anti-leprosy drug at present available.

Isonicotinic acid hydrazide (isoniazid), administered by mouth, appears to be beneficial in tuberculosis, sometimes in lupus vulgaris and in lepromatous leprosy, but drug-resistant strains of tubercle bacilli develop readily.

Mepacrine has been used with good results in some cases of chronic lupus erythematosus; the dose used has been 300 mg. a day until the skin got yellow, and then 100 mg. daily for not more than three months. Some cases of severe side-effects have been noted, e.g., lichen-planus-like eruptions and exfoliative dermatitis.

Two antihistamines have been officially recognized, i.e., mepyramine maleate (anthisan) and promethazine hydrochloride (phenergan). These drugs are usually effective, if given in adequate doses, in suppressing urticaria and angio-neurotic oedema. Anthisan has to be administered several times a day, but phenergan is best given at bed-time. Locally, the antihistamines have a mild anaesthetic effect (but some of them readily cause sensitization.—A. C. R.).

Cortisone and ACTH depress the activity of the disease process without greatly altering the natural history. Patients suffering from subacute lupus erythematosus and pemphigus vulgaris have been benfited but the effect is apt to be temporary, although short courses may be useful in self-limited diseases such as contact dermatitis and acute erythema multiforme, including Stevens-Johnson syndrome.

Psychiatric investigation of a patient with an eczema, rosacea or a neuro-dermatitis may indicate why the patient has the dermatosis, but it much less often helps the patient to be rid of it.

Sulphapyridine is still the drug of choice in the control of dermatitis herpetiformis, but agranulocytosis must be watched for.

Gravitational ulcers are, in many cases, due to venous thrombosis, and patients compelled to be recumbent should do leg exercises. Anticoagulant substances in small doses may be indicated after operations in the hope of preventing venous thrombosis of the legs.

In this country x-ray epilation remains the quickest and surest method for treatment of ringworm of the scalp, though numerous fungicides and specially penetrating ointment bases have been used and compared. The natural history of tinea capitis due to *M. canis* and *M. audouini* varies greatly, and it is important, therefore, to ascertain which fungus is involved in any given case in order that the most suitable line of treatment may be adopted.

It is claimed from Egypt that vitiligo may be successfully treated with alkaloids derived from the plant *Ammi majus*, Linn. The drugs may be used locally or by mouth but, in either case, ultra-violet light or sunlight must be applied to the affected areas. In certain cases of hyperpigmentation the application of monobenzyl ether of hydroquinone has had a marked depigmentary effect. It is, however, a potent sensitizer of the skin, although a $\frac{1}{2}$% ointment was used by Pollock without ill-effect. A. C. R.